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WITH THE DEAF TOWARD DEAFNESS AND DEAF
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The University of Arizona, Ed.D., 1973
Education, guidance and counseling

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ATTITUDES OF REHABILITATION COUNSELORS
WITH THE DEAF TOWARD DEAFNESS
AND DEAF PEOPLE

by
Victor Henry Galloway

A Dissertation Submitted to the Faculty of the
REHABILITATION CENTER

In Partial Fulfillment of the Requirements
For the Degree of

DOCTOR OF EDUCATION

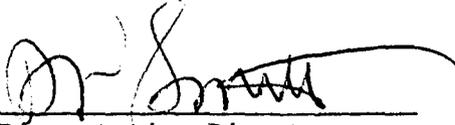
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I hereby recommend that this dissertation prepared under my
direction by Victor Henry Galloway
entitled Attitudes of Rehabilitation Counselors with the Deaf
Toward Deafness and Deaf People
be accepted as fulfilling the dissertation requirement of the
degree of Doctor of Education


Dissertation Director

7/14/72
Date

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SIGNED:

Victor Henry Holloway

This dissertation is dedicated to:

Dr. Boyce R. Williams
and
Mr. Craig Mills
for

their unselfish contributions to the cause of deafness

Dawn C. Galloway
Vance H. Galloway
Shayne L. Galloway

my dear children, for the joys and pleasures
they have brought into my life

Marilyn Ware Galloway

my beloved wife, for her enduring patience, many hours of assistance,
and, most important of all, her love

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ABSTRACT

The general purpose of this study was to measure attitudes of rehabilitation counselors with the deaf toward deafness and deaf persons. Additionally, the study determined relationships between counselors' attitudes and lengths of job experience and amounts of their education. To accomplish this, the study asked these questions:

1. Are rehabilitation counselors with the deaf generally positive or negative in their attitudes toward the deaf?
2. Do attitudes of the hearing and hearing-impaired counselors differ significantly?
3. Does the counselors' education and experience span play an important role in forming negative or positive attitudes?
4. Do attitudes toward deafness differ significantly among the four counselor groups: (1) hearing rehabilitation counselors with the deaf, (2) hearing-impaired rehabilitation counselors with the deaf, (3) general rehabilitation counselors without prior work experience with and with considerable exposure to deaf persons; and (4) professional persons in the counseling field without work experience with or considerable exposure to deaf persons?

To gather data, a questionnaire was mailed to a total of 467 persons in the four counselor populations. Of the 386 (82.7%) questionnaires returned, 149 (38.5%) were used in this study.

Descriptive data were used to analyze demographic information. Analysis of variance and Pearson product-moment coefficients of correlation were used to test the hypotheses for significance at the .05 level.

Results revealed the typical hearing rehabilitation counselor with the deaf (RCD) is a full time counselor with the deaf in the field of vocational rehabilitation 4.20 years, and has had 2.85 years experience in working with deaf and hard of hearing persons in all areas. He has had 54.50 months of education beyond secondary school plus a master's degree.

The typical hearing-impaired RCD may be described as a full time counselor with the deaf who has been in vocational rehabilitation 4.50 years and has had 5.01 years experience in working with deaf and hard of hearing persons in all areas. He also had 59.91 months of education beyond high school plus a master's degree.

The typical subject in the population consisting of counselors, who have had no prior experience with a deaf caseload although they have had considerable exposure to deaf persons, is a general counselor who does not carry deaf clients on his caseload and has not had any experience in working with them. He has been in vocational rehabilitation for 4.23 years. He has had 69.17 months of education beyond high school plus a master's degree.

The subject representative of the population consisting of professional persons in the counseling field without prior experience with or considerable exposure to deaf persons experienced 3.50 years in vocational rehabilitation, 73.30 months of education beyond high school plus a master's degree.

Results indicated no attitudinal difference toward deafness and deaf persons among the four groups of counselors and the attitude scores compare to the results reported in similar studies.

No relationship exists between the amount of education that the hearing RCDs had and their attitudes toward deafness and deaf persons. Similar findings were made for the hearing-impaired RCDs. Job experience span that both hearing RCDs and hearing-impaired RCDs had revealed no relationship with their attitudes toward deafness and deaf persons.

It was recommended that study replication be conducted utilizing a different instrument developed specifically for the purpose of the study and validated against a similar matched sample. A follow-up to this study utilizing study instruments would be administered to all rehabilitation center trainees at the beginning of the program, prior to completion of the program and again one year after completion to measure any possible changes in attitudes was suggested.

CHAPTER I

INTRODUCTION

Introduction to the Problem

The problem with which this study was concerned was that of measuring the attitudes of rehabilitation counselors with the deaf toward deaf adults.

To understand fully the importance of the problem and the specific statements of the purposes of this study, a brief consideration of the magnitude of the problem concerning attitudes toward disabled persons in general and deaf persons in particular is necessary. Some contributory factors related to the current status of deaf people were also discussed.

Consideration of the Problem

The counseling process, first and foremost, is a relationship that exists between a counselor and a client. The attitudes the counselor brings to the situation are critical throughout the relationship. At some point during the process the counselor and the client will usually decide that there is sufficient evidence, information, feeling, and understanding of aptitudes and interests to sit down and arrive at a decision regarding the directions the client ought to take in overcoming his problem (Reece, 1965).

Since relatively few counselors have special training in, or knowledge of, the problems of deaf persons, they are likely to feel inadequate in counseling them (Rogers and Quigley, 1960). Another major problem that confronts the counselor stems from the attitudes of employers, co-workers, and the general public toward deaf persons. These attitudes, predominantly negative, often arise from either inadequate or no knowledge about deaf persons and from the false belief that intellectual capacity is adequately reflected in the individual's oral and written language ability (Rogers and Quigley, 1960). These factors combine to form a formidable obstacle to deaf persons in their attempts to attain social integration and community participation. Such negative attitudes present barriers to the attainment of optimum psychological and social adjustment by deaf persons.

Very recently, research studies have reported measurement of attitudes toward the disability of deafness but no information has as yet appeared in print regarding measurement of such attitudes among rehabilitation counselors. Furthermore, these attitudes, once measured, probably would vary among counselors who were severely hearing-impaired themselves. While studies about attitudes of the non-disabled population toward various disability groups, including deaf persons, are on the increase, there appears to be only a limited number of studies regarding the attitudes of deaf persons (Hill, 1971).

Statement of the Problem

This study was an effort to measure attitudes of rehabilitation counselors of the deaf toward deaf persons, to compare attitudes

of hearing and hearing-impaired counselors, and to discuss the implications of these attitudes for the well-being of deaf clients with whom counselors come in contact. This study should provide information on factors that can be used for possible modification of currently demonstrated negative attitudes. Implications for training of rehabilitation counselors were also sought. The comparison of the attitudes of hearing and hearing-impaired counselors was sought in order to determine if the element of active identification is a factor in the formation of either positive or negative attitudes towards deaf persons.

Questions: The study was designed to obtain information that may answer the following questions:

1. Are rehabilitation counselors with the deaf generally positive or negative in their attitudes toward the deaf?
2. Do the attitudes of the hearing and hearing-impaired counselors differ significantly?
3. Does the extent of education and experience that the counselors possess play an important role in the formation of either negative or positive attitudes?
4. Do attitudes toward deafness differ significantly among the four counselor groups: (1) hearing rehabilitation counselors with the deaf, (2) hearing-impaired rehabilitation counselors with the deaf, (3) general rehabilitation counselors without any prior work experience with and with considerable exposure to deaf persons; and (4) professional persons in the counseling field without any work experience with or considerable exposure to deaf persons?

Importance of the Problem

The report on a milestone conference on research needs in the vocational rehabilitation of deaf persons, held at Gallaudet College, Washington, D.C., identified clusters of important research problems relevant to successful vocational rehabilitation of the deaf (Rogers and Quigley, 1960). It was indicated that "the attitudes of employers toward the deaf may be important factors contributing to the difficulties in the final placement of the deaf person in an occupation (p. 355)." One area that was singled out concerned the nature and extent of vocational counseling services provided for deaf clients. High priority was assigned to the counselor as a variable. The (then) Office of Vocational Rehabilitation, which sponsored the conference, has sought and is continuing to seek information about such counselor variables that may affect the effectiveness of its services.

Several studies (Barrett-Lennard, 1962; Bergin, 1962; Halkides, 1958; Rogers, et al., 1967; and van der Veen, 1965) repeatedly indicated that the attitudes of the counselor toward the client are especially significant in producing positive and negative personality change in clients. In the area of counseling the deaf, Stewart (1970) stated that, regardless of the counselor's methods, techniques, or theoretical orientation, effective counseling will take place only if the counselor has the proper attitudes. Stuckless (1969) reported that deaf students are sensitive to the attitudes of the instructor. He suggested that it would make better sense to place deaf students in classes with instructors who are interested in (have positive attitudes toward) deaf students. Stuckless assumed that a parallel situation

also obtains in a rehabilitation setting. Fostering more favorable attitudes toward deaf persons is possible, because attitudes of instructors, who undergo intensive training just prior to their first contact with deaf students, shift significantly toward a more positive direction, according to pre-post test comparisons.

If rehabilitation counselors with the deaf exhibit negative attitudes toward deaf persons, then appropriate steps could be taken to modify such attitudes. Such modifications are desirable since adverse attitudes may include counselor-imputed functional limitations (Siller, et al., 1968). This factor affects the ability of the disabled person to function in his environment. It imposes overall functional limitations, physical dependency, and restricted earning capacity. Counselors who continue to exhibit negative attitudes may stigmatize their deaf clients and form stereotypes about their supposed inadequacies and inferiority. A closer investigation of this factor was desired so that corrective education may be instituted to modify such tendencies which cause the devaluation of so many humans.

The problem assumes even greater importance when one considers the fact that during the fiscal years 1964-1968 approximately 45,700 clients with hearing impairments were served by vocational rehabilitation agencies (Lesowitz, 1969).

Hypotheses

For statistical purposes, the following null hypotheses were tested:

Hypothesis I: There is no significant difference in attitudes among any of the following four groups:

- (a) Hearing rehabilitation counselors with the deaf;
- (b) Hearing-impaired rehabilitation counselors with the deaf;
- (c) General rehabilitation counselors without any prior experience with and with considerable exposure to deaf persons;
- (d) Professional persons in the counseling field without any prior experience with or considerable exposure to deaf persons.

Hypothesis II: There is no significant relationship between the amount of education in months and the attitudes of the hearing rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

Hypothesis III: There is no significant relationship between the amount of education in months and the attitudes of the hearing-impaired rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

Hypothesis IV: There is no significant relationship between the length of job experience and the attitudes of the hearing rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

Hypothesis V: There is no significant relationship between the length of job experience and the attitudes of the hearing-impaired rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

Procedures

The following instruments and procedures were used in conducting this study.

1. Evaluation instrument:

A four-point 25-item rating scale developed by Cowen, et al. (1967) was used to assess the attitudes of the rehabilitation counselors. In addition to the mailed scale, an accompanying simple form was used to collect the following information on the respondents: position and title, hearing status, amount of education in months, job experience in years and months, current caseload, and extent of exposure to deaf persons. The 25-item rating scale to assess attitudes toward deaf persons was adopted by modifying thirty items from an Attitude to Blindness Scale and creating de novo twenty additional items reflecting an attitude toward deafness or deaf people and then further refining and eliminating low-discrimination items by means of item analysis. The discriminating power of the final 25-item scale has been adjudged by Cowen, et al. (1967) to be reasonably stable and a split-half reliability of .83 has been established for the scale.

2. Population selection and procedures:

There were four categories of subjects: (a) hearing rehabilitation counselors with the deaf; (b) hearing-impaired rehabilitation counselors with the deaf; (c) general rehabilitation counselors without any prior work experience with and with considerable exposure to deaf persons (participants in the graduate level training program along with deaf trainees at The University of Arizona); and (d) professional persons in the counseling field without any prior work experience and considerable exposure to deaf persons. Random sampling was applied within two of the three groups of hearing subjects. All known hearing-impaired rehabilitation counselors of deaf persons were included. The selection procedures were as follows:

(a) Hearing and hearing-impaired rehabilitation counselors with the deaf--

Survey sheets and questionnaires were mailed to all rehabilitation counselors with the deaf included on the list provided by the Office of Deafness and Communicative Disorders, Division of Disability Services, Rehabilitation Services Administration, U. S. Department of Health, Education, and Welfare and subsequently updated by Tully (1971). All returned survey sheets and questionnaires were screened to separate counselors who identified themselves to be either deaf or hard-of-hearing from those who were not hearing-impaired. Since the number of hearing-impaired

counselors of the deaf was only 38, all such individuals constituted the hearing-impaired counselor group. The hearing rehabilitation counselors with the deaf (RCDs) were further screened to include only those who devoted at least 25% of their time to providing case services to hearing-impaired clients. The final fifty subjects were drawn randomly from those who met this criterion.

(b) General rehabilitation counselors without any prior experience with and with considerable exposure to deaf persons--

Survey sheets and questionnaires were sent to all general rehabilitation counselors who participated in the rehabilitation counseling training program at The University of Arizona from May 1966 on. The returned forms were screened to eliminate those respondents who carried case-loads currently including hearing-impaired clients. The remaining subjects had had considerable exposure to deaf persons inasmuch as there were at least two deaf graduate students each year in the rehabilitation training program from September 1966 on. All respondents meeting the criterion were included in this study.

(c) Professional persons in the counseling field without any prior experience with or considerable exposure to deaf persons--

One hundred and three subjects were selected randomly from a list of 1,572 professional members provided by the

American Rehabilitation Counseling Association (ARCA). Survey sheets and questionnaires were then mailed to the 103 subjects. All returned forms were checked to ensure that the subjects met the no-experience and no-considerable exposure criteria.

3. Statistical treatment:

The evaluation instrument used in this study was a questionnaire that yielded attitude towards deafness scores. It is described thoroughly in Chapter III and the actual questionnaire can be found as Appendix A.

A maximum of 4 points was assigned to each item of the 4-point rating questionnaire. Hence the possible range of scores was from 25 to 100.

Higher scores on the scale indicated more negative attitudes to deafness.

Analysis of variance was employed to test Hypothesis I. Product-moment coefficients of correlation were used to test Hypotheses II, III, IV, and V. The .05 level of significance was used to accept or reject the hypotheses.

Assumptions

This study was based on the following assumptions: (1) an accurate assessment of the attitudes of rehabilitation counselors in the four population categories selected for this study could be obtained with the instrument used, (2) rehabilitation counselors would be motivated to respond to the questionnaire in a manner that reflected

their considered opinion, (3) immediate responses to the questionnaire items would be the most appropriate ones for accurate assessment of attitudes, and (4) the randomly selected subjects in the hearing RCD population and the ARCA population would be representative of these two particular rehabilitation counselor populations assessed.

Limitations

Certain limitations were present in this study. There is a possibility that the respondents viewed some items as overly downgrading and, by overreacting, tended to distort their perceptions or attitudes. In addition, the overspecificity of the test instrument may have functioned to introduce attitudes not heretofore considered by the respondents.

Although a split-half reliability of .83 has been established for the scale, comparative studies of restricted groups, e.g., personnel in education, may suggest separate norms. Any attitudes implied in the scores may be indicative of responses to disability in general, rather than to deafness in particular.

"Professed positive attitudes do not often determine actual behavior since they often reflect defensive reactions or socially desirable responses, rather than true feelings (Wolman, 1965, p. 814)." Respondents may feel uncomfortable or uneasy in the presence of the disabled but overcompensate for this feeling on the attitude scale, while others harboring the same feelings may have been less inclined to do so.

Definitions

Attitude: An integral part of personality (Kerlinger, 1964, p. 483). Kerlinger suggested that an attitude is a predisposition to think, feel, perceive, and behave toward a cognitive subject, that is, one has an attitude toward something "out there". In this study, attitude was defined as the score that one received on the Opinions About Deafness and Deaf Persons Scale.

Rehabilitation counselor with the deaf: Any counselor, employed by a state vocational rehabilitation agency, who devotes at least twenty five percent of his time to providing case services to hearing-impaired persons.

Hearing-impaired persons: Those in whom the loss of hearing may range on the continuum from severely deafened to hard-of-hearing of sufficient severity to require the services of a rehabilitation counselor.

General rehabilitation counselor: Any counselor employed by a state vocational rehabilitation agency providing case services to clients with any physical disabilities other than hearing impairment.

Amount of education: Total number of months spent in schools and training beyond high school as reported by the respondents.

Length of job experience: Total number of years and months that the respondents report that they have worked with a deaf case-load.

Considerable exposure: Degree of exposure to deaf persons by virtue of the respondents' having deaf relatives, having attended

classes with deaf students, having been employed at a place where there were deaf workers, or other similar circumstances.

Summary

Chapter I has discussed the nature of the study, considered the importance of the study, outlined the hypotheses to be tested, described the procedures used, stated the assumptions underlying the study, suggested possible limitations of the study, and stated definitions of terms used.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter presents a review of the literature in four sections. Section one discusses the concepts of attitude and opinion while the development of attitude scales is covered in section two. Section three describes some of the measurements and studies of attitudes toward disabilities and section four focuses on the measurements and studies of attitudes toward deafness.

Concepts of Attitude and Opinion

Attitude research occupies a central position in social psychology. However, the dearth of literature concerning measurement and evaluation of attitudes of hearing persons toward deafness and deaf persons dictates the need to include a review of selected reports of formal and informal studies in the general areas of attitudes.

Attitude has been defined in many different ways by different people. Cardno (1955) defined attitude as an existing predisposition to respond to social objects which, in interaction with situational and other dispositional variables, affects the overt behavior of the attitude holder. In their review of the literature Shaw and Wright (1967) found that this definition contains a characteristic that is common

in other existing definitions. As a result of their study they concluded that attitude should be defined as a "relatively enduring system of affective, evaluative reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of social object or class of social objects (p. 10)."

Allport (1965) suggested that the concept of attitude has a definite motor cast and therefore defined attitude as always having an object of reference and being usually pro or con, favorable or unfavorable, well-disposed or ill-disposed with the possible result of withdrawing from or approaching toward the object. That an attitude toward an object is the sum of the strength of beliefs about the object and the evaluative aspects of the object was the definition preferred by Anderson and Fishbein (1965).

In some of the literature reviewed the terms attitude and opinion are used interchangeably. Smith, Bruner and White (1956) referred to attitude, opinion and sentiment as the kind of predisposition to experience, to be motivated by, and to act toward a class of objects in a predictable manner. Super and Crites (1962) stated that attitudes are the least fixed of personality traits in that the environment does not seem to clearly and readily affect them. In a fairly lengthy chapter titled Personality, Attitudes, and Temperament (pp. 514-586) they attempted a cursory study of the theories of personality without once mentioning attitude as a separate component or attempting a definition of the term. For their purposes measurement and evaluation of attitudes were deemed useful in arriving at an understanding of the nature and development of personality.

Berelson and Steiner (1964) attempted to differentiate between attitude and opinion thus:

In a broad sense, "opinion" refers to a person's preference for one or another side of a controversial matter in the public domain. Usually the term "opinion" refers to more superficial and transitory issues, the term "attitude" to somewhat deeper and longer lasting convictions (p. 225).

Kerlinger (1964) compared attitudes with traits, rather than with opinions. He agreed with the general assertion that attitudes are really an integral part of personality but went further to support the modern theorists' argument that intelligence and aptitude are also integral parts of personality. Personality measurement, he pointed out, is mostly of traits which he defined as an enduring characteristic of the individual to respond in a certain manner in all situations. "An attitude, on the other hand is a predisposition to think, feel, perceive, and behave toward a cognitive object. One has an attitude toward something 'out there'. A trait has subjective reference; an attitude has objective reference (p. 483)."

Relationships among opinions, attitudes, and interests were discussed by Nunnally (1959). He described interests as being indicative of what an individual does and does not like to do while opinions and attitudes have to do with his reactions to people, institutions, and ideas in the world about him. "The term 'opinions' is used more often to refer to judgments and knowledge, whereas the term 'attitudes' is more connotative of feelings and preferences (p. 285)."

Attitude Scales

Several authors have lamented the fact that there has been less-than-optimum advances in the study of attitudes due to the inaccessibility of existing attitude scales (Bechtoldt, 1951; Kerlinger, 1964; and Shaw and Wright, 1967). There are, however, three major basic methods of measuring attitudes which were developed by Thurstone (1929, 1931), Likert (1932) and Guttman (1944). They employ three types of scales: summated rating scales, equal-appearing interval scales and cumulative (or Guttman) scales.

A summated rating scale is a set of attitude items, all of which are considered to be of approximately equal "attitude value", and to each of which subjects respond with degrees of agreement or disagreement (intensity). The scores of the items of such a scale are summed, or summed and averaged, to yield an individual's attitude score. The result of this rating scale places an individual somewhere on an agreement continuum of the attitude in question (Kerlinger, 1964, p. 484). Equal-appearing interval scales are built on different principles. Although a set of attitude items can be used for the same purpose of assigning individuals' attitude scores or places along an agreement-disagreement continuum, equal-appearing interval scales also accomplish the important purpose of scaling the attitude items. Each item is assigned a scale value, and the scale value indicates the strength of attitude of an agreement response to the item. Under this system items differ in scale value and the scaling procedure finds these scale values. An important and desirable psychometric feature

of this approach is the selection of the items of the final scale so that the intervals between them are equal (p. 485).

The cumulative scale consists of a relatively small set of homogeneous items that are unidimensional; that is, one variable and only one variable is measured. The scale derives its name from the cumulative relation between items and the total scores of individuals. The major difference among the three approaches lies in the focus of the scale. The summated rating scale concentrates on the subjects and their places on the scale. The equal-appearing interval scale concentrates on the items and their places on the scale. Finally, the cumulative scale concentrates on the scalability of sets of items and on the scale position of individuals. The one feature that appears to distinguish attitude scaling is the necessity of scale construction so that a group of subjects can be ordered in terms of an attitude dimension (Smith, Bruner, and White, 1956, p. 287).

Attitudes Toward Disabilities

Levine (1960) noted that society takes neither kindly nor intelligently to physical disability. Devaluating attitudes appear in many forms and emerge in many places. These attitudes may be displayed as pity, maudlinness, indifference or frank rejection. Many aspects of life are affected: family, community, education, vocation, recreation, courtship, marriage and parenthood. According to Levine, "when society's attitudes penetrate the disabled person's painfully acquired self-acceptance, the spark of motivation that has kept him going grows dim (1960, p. 114)."

Until recent years attitudes toward the disabled have been largely uncharted. Siller (1967) also noted that in contrast to groups stigmatized by racial or religious identification, there was a paucity of experimental literature on attitudes toward the disabled, an area that has been relatively unexplored. Cowen, et al. (1967) suggested that past attempts to collate views held toward a number of disability groups were biased by conjecture, impressionism, uncontrolled observation, and preconception (p. 183). The few existing measures of disability-attitude exhibited numerous psychometric weaknesses particularly the assumption of unidimensionality (Siller, 1967).

Important contributions to the disability-attitude research have been made by Siller (1967) and Cowen, et al. (1967). Siller's program of research on attitudes of the nondisabled toward the physically disabled has yielded data on a number of questions: (1) how do people react; (2) what are the components of such reactions and how can they be measured; (3) are there differential reactions to individual disabilities; (4) are certain personality traits particularly significant in these reactions; and (5) do these reactions generalize to other forms of disability. A variety of procedures was used, notably interviews, self-report instruments, and projective techniques. Some of the major problems involved in work on attitudes toward the physically disabled have been identified by Siller. They include the question of continuity between attitudes toward the physically handicapped and toward that of other stigmatized groups, the complex multidimensionality of the disability-attitude domain, the consistency and nature of attitudes of individuals within and across disability types,

categorization of disabilities in terms of service-orientation (orthopedic handicap, sensory handicap, mental handicap, etc.), and the relationship between personality structure and attitude toward the disabled.

At the 76th Annual Convention of the American Psychological Association Siller, et al. (1968) reported on their work in the development of structure of attitudes toward the physically disabled. In attempts to identify and to measure dimensions of attitudes toward the disabled, Siller, et al. (1968) sampled the disability universe and selected the disabilities of amputation, blindness, and cosmetic conditions which represented two types of impairment: functional and cosmetic.

Preliminary data were obtained from three separate groups who responded to one of three large pools of items tapping attitudes toward each of the three disabilities and certain disability areas (e.g., Authoritarianism, Personal Health). The procedure of factor analysis reduced the resultant number of items by eliminating the lowest loading ones.

In the final development each of three new groups of subjects of varying demographic characteristics were administered one of the three revised questionnaires (483, 477, and 520 for the Amputation, Blindness, and Cosmetic Conditions questionnaires, respectively). Two hundred and thirty three subjects responded to all three disability questionnaires in order that the relationships across questionnaires might be studied. The returns were factor analyzed (Principal Components), and scales were derived from the resulting factors through further item reduction (Siller, et al., 1968, p. 651).

Thus, a set of psychologically meaningful dimensions was obtained for each of the three disability types by means of factor analysis and psychometrically rigorous scales were constructed for the purpose of measuring these dimensions. These scales were named Disability Factor Scales (DFS) and were multidimensional. The DFS-A (amputation) has seven scales totaling 101 items, DFS-B (blindness),

the same seven totaling 105 items, and DFS-C (cosmetic), six scales totaling 80 items. The internal consistency reliability coefficients have been found to range from .62 to .92 for all three scales.

A number of significant psychometric problems with important implications for this proposed study were pinpointed by Siller (1967) and Siller, et al. (1968). Siller, et al. cited the problems as being: "(a) the components of attitudes held toward specific disabilities, (b) the extent to which these components are similar for different disabilities, (c) the nature of the interrelationships among the components, (d) the degree of consistency among individuals' attitudes toward persons with different disabilities, and (e) the role of demographic variables in relation to the disabled (1968, p. 651)."

Among the better known scales is the Attitude Toward Disabled People (ATDP) scale developed by Yuker, Block, and Campbell (1960) who have produced supporting data that are better than for most scales. Shaw and Wright (1967) stated that there is still some question concerning its validity but deemed it adequate for research purposes.

The ATDP attempts to measure attitudes toward disabled persons. The initial form of the scale consisted of 20 items but later was revised into two equivalent 30-item forms as a result of further research. The basic format of the scale is the elicitation of responses to statements suggesting that disabled persons are either the same as, or different from, physically normal people. Half of the items deal with the question of special treatment for the disabled while similarities or differences in personality characteristics are

covered by the other half of items. Item analysis was employed to select the items.

The ATDP scale has been given to a large number of subjects. Samples of physically normal college students at Hofstra College yielded estimates of reliability. Validation was obtained from a sample of 248 disabled persons employed by Abilities, Inc. In the usual administration of this scale subjects are given a six-point response scale indicating intensity of agreement or disagreement. These choices are weighted +3, +2, +1, -1, -2, and -3, respectively. The subject responds to each item by circling the weight corresponding to the intensity of his agreement or disagreement to the item. After all the positive items have been keyed for scoring purposes, all the responses are added algebraically. High scores by disabled persons are interpreted as self-acceptance; high scores by nondisabled persons reflect a favorable attitude toward disabled persons.

In the seven years since the ATDP scale was developed, Yuker, Block and Young (1967) noted that there have been many studies of the reliability of the ATDP. The reliability coefficients have ranged from a low .57 to a high .83, with a median value of approximately .74. These values are comparable to those usually obtained with attitude scales of similar length. The authors, however, caution the user against heavy reliance on the use of the measure for individual prediction. Data indicate that the ATDP does not lend itself to faking. Various studies using the ATDP have attempted to measure attitudes against demographic correlates, personality correlates, attitudinal correlates and experiential and behavioral correlates.

Another well-known scale is The Attitude to Blindness Scale that was constructed by Cowen, Underberg, and Verrillo (1958). The items in the final scale were selected from a pool of 97 items taken from questionnaires developed elsewhere. Five judges were selected from among workers with the blind to determine whether agreement with a given statement indicated a positive or a negative attitude by a sighted person toward the blind. There was perfect agreement on 56 items which were narrowed to 30 through the Flanagan's tetrachoric r method of item analysis. Ten positive and twenty negative items make up the questionnaire.

The Attitude to Blindness Scale requires four response alternatives for each item: strongly or mildly agree and strongly or mildly disagree. The attitude score is the sum of item scores after the negative items have been reverse keyed. The higher the score, the more unfavorable the attitude is toward blindness. Split-half reliability was established at .83 before correction and .91 after correction. As is often true for other scales, there is adequate reliability but insufficient evidence of validity (Shaw and Wright, 1967). The best indication of validity would appear to be the agreement of judges.

The use of the scales described in this section and others have yielded results which have proven to be very helpful in social and experimental psychological research. The results have suggested possible modifications or improvements in the rehabilitation of disabled persons and in the training of the rehabilitation workers.

Siller (1970) attempted to determine whether the structure of attitudes toward a variety of disability conditions is primarily

organized by specific disability type or by attitudinal dimensions that are general to a wide variety of conditions, and whether it is feasible to develop a multidimensional instrument that would measure consistent reactions across a variety of disabling physical conditions without using the ambiguous term "disability" itself. A 120-item Likert-type questionnaire with 15 items for each of 8 dimensions of attitude previously determined, was administered to 772 subjects. Results indicated attitudinal dimensions are the primary organizing factors of the structure of attitudes and a multidimensional instrument is feasible.

In a study by Bell (1962), the ATDP scale was used to measure the attitudes of selected rehabilitation workers and other hospital employees toward the physically disabled. He reported that 30 hospital employees with disabled relatives or friends scored significantly higher on an Attitude Toward Disabled Persons Scale, indicating greater acceptance than did two groups without close personal ties to disabled persons. Of the subjects without personal ties, a group of 40 rehabilitation workers did not differ in the ATDP scores from a group of 40 hospital employees not engaged in therapeutic work. This study is a good example of the use of ATDP scale in identifying ego involvement as a factor in attitudes toward disability.

In an extended study carried out at the Research Division of the School of Engineering and Science at New York University, Siller, et al. (1967) examined the relationship of specific personality characteristics to attitudes toward disability; described differential

reactions to various disabilities; and analyzed components of attitudes toward the disabled. The measurement of attitudes of the non-disabled was the principal goal of this study. Comprehensive self-report personality measures were administered to 284 college, 229 high school, and 235 junior high school students. The ATDP scale in conjunction with the Feeling Check List (FCL) and Social Distance Scale (SDS) was used to measure disability attitude. The scores were intercorrelated and factor analyzed for each educational level separately. The results supported the authors' hypotheses that variables such as anxiety and hostility were negatively correlated with acceptance of the disabled, while ego-strength and nurturance were correlated positively. In further examination of the relationship between personality structure and disability attitude, the authors obtained data supporting only the hypothesis that an inverse relationship between permeability of ego boundaries and acceptance of the disabled existed. Some of the specific findings and implications of interest to the rehabilitation worker are:

1. There is evidence that a relationship exists between aspects of personality and reactions to the disabled. Rehabilitation workers can be alerted to the tendency of persons of low ego-strength and an unstable level of object relationships to be hostile toward, and anxious about, the handicapped. There also appears to be a relationship between particular problems of the respondent and his reaction to a specific handicap that cuts across personality categories. For example, persons having difficulty in communication for psychological reasons may have particular distress with the deaf. Modification of prejudiced attitudes therefore can be an indirect result of personality changes in the respondent or occur more directly by reducing the anxiety potential of such encounters.

2. Disability is interpreted as destruction of the self as it is known. An initial and basic rehabilitation focus is to assist the

newly disabled person in reforming a self that is predicated on worth rather than on deficiency. Part processes, such as functional effectiveness, become initial rehabilitation strategies designed to foster ego-integrative qualities of the rehabilitant.

3. Among the many determinants of attitude, quality of contact with the disabled is more crucial than amount.

4. There is some evidence that congenital disabilities are believed to inevitably lead to warped personality development. Further study is needed in this area.

5. A strong relationship between degree of body distortion and ascription of untoward personal qualities exists. Techniques for helping the handicapped person to deal with these imputations without suffering self-hate or engaging in retributive action need to be developed (p. iv).

Auvenshine (1962) developed an attitude scale to determine whether attitudes of college students toward disabled college students were comparably favorable from one content category to another or if favorableness of attitudes varied among the content areas, including activities of daily living, personal characteristics, social activities, academic activities, and special privileges. He made up a pool of 60 items to each of the five content areas for a total of 300 statements and presented them to 46 rehabilitation workers who served as judges to rate the items on the extent of favorableness of each item. As a result of the ratings, fifteen items were eliminated from each content area. The remaining 225 items were administered to a pilot group of 121 students. By means of an item-analysis study an additional 75 items were eliminated. The final scale consisted of 150 items. A trial administration of the final scale to 316 respondents indicated that each of the 150 items discriminated between the favorable and unfavorable groups at the .05 level of significance. The interpretation of the other findings was that college students had a variety of

attitudes toward severely disabled students and that these attitudes are fairly stable in time. These attitudes also appeared to be comparably favorable among the content categories.

Attitude Toward Deafness

The revolutionary advances made in science have made a tremendous impact on the attitude toward deafness but the attitude was primarily fatalistic until the 17th century (Hodgson, 1954). Hodgson (1954) said that Aristotle suggested 2,000 years ago that all who were born deaf became senseless and incapable of reason. No educated man beholden to Aristotle's musings would waste his time and strength in essaying an acknowledged impossibility. Hodgson found several statements in the Holy Bible that would generate unfavorable attitudes toward deafness. He also speculated that even though after uncountable centuries hearing people have ceased to "vent their spite against circumstance upon the hapless creatures (p. 68)" in the most advanced countries, such animal cruelty continues unabated elsewhere.

Negative attitudes, although somewhat less severe now, have persisted throughout these centuries. Several modern day authors have noted general misconceptions and prejudices toward deaf persons (Best, 1943; Cowen, et al., 1967; Ferguson, 1970; Garrett and Levine, 1962; Levine, 1960; Schroedel and Schiff, 1971; and Siller, et al., 1967). Instances of stereotyping and misunderstanding appear in the daily and monthly publications. In the January 1972 issue of Psychology Today a letter to the editor took Greenberg (1970) to task for failing to emphasize the positive aspects of the disability of the deaf character

in an excerpt of her book, In This Sign, which was published in the October 1971 issue of Psychology Today. The letter writer, Reid (1972), claimed that the negative attitudes of the nondisabled such as described by Wright (1960) were highly apparent in Greenberg's book. Garrett and Levine (1962) stated that: "To the world at large, impaired hearing is an irritating block to quick, easy communication. . . . There are many parents of deaf children who find it hard to believe that such children are 'normal', who consider the disability a mysterious affliction . . . (p. 304)."

Stuckless (1969) presented program characteristics for student success in higher education (National Technical Institute for the Deaf) and treated at some length the implications of faculty attitudes in relation to student success. He noted that most faculty members pre-date the entrance of deaf students into their institution. Stuckless suggested that one cannot assume that favorable attitudes or even neutral attitudes exist toward deaf students. Frequently a single unfavorable experience with a deaf student can considerably alienate a faculty member. On the other hand, a single positive experience can foster a healthy, supportive attitude. Rogers and Quigley (1960) pointed out that "since the number of deaf persons in the United States is small in comparison to the total population, many hearing persons have little or no contact with a deaf person (p. 339)." Since hearing persons have little knowledge of the problems imposed by deafness, whatever knowledge they possess is likely to be erroneous at least in some respects. Consequently, a set of erroneous attitudes is formed

which holds that intellectual capacity is reflected by the individual's ability to use spoken and written language.

Negative or low attitudes have been attributed not only to uninitiated persons but quite frequently to persons who might be expected to have a modicum of understanding about disability in general. An article in the January 29, 1972 issue of The Washington Post quoted Virginia's deputy commissioner of vocational rehabilitation: "Deaf people are not very easily satisfied. It is a characteristic of their disability (Bernstein, 1972)." This statement was made after he had completed his testimony before a committee of the House of Delegates studying a bill to create a State Commission for the Deaf.

When one considers the possible relative difference in attitudes exhibited by hearing counselors and hearing-impaired counselors, "the difference in salience and ego involvement between the disabled and the nondisabled (Wolman, 1965, p. 814)" must be taken into account. A study by Ladieu, Adler, and Dembo (1948) highlighted the importance of ego involvement as a contributory factor in the formation of attitudes toward disability. The problems of deaf clients may be primarily academic to the hearing counselor, whose responses may not be based on crystallized core feelings, and probably reflect superficial generalizations. Counseling with deaf clients is a relatively unexplored area of knowledge, principally as a consequence of the problems created by the difficulty in communication between the counselor and the deaf client (Stewart, 1970).

Although Siller, et al. (1967) did not find any extreme aversion to the deaf, they did find universal annoyance and irritation

at the practical difficulties in communication with deaf persons (pp. 54-55). The lack of apparent visibility in deafness lessens its negative social stimulus value and hence had less effect on self-concept. The Feeling Check List (FCL) and the Social Distance Scale (SDS) were the two instruments used by the team of researchers to arrive at these qualitative data followed by interviews.

Ferguson (1970) has developed a deafness form, one of the various Disability Factor Scales (DFS) constructed by the Siller group, which was tested with 674 hearing students to establish the factorial structure of attitudes toward the deaf, provide measures of these factors, and relate the results to other disabilities. This 65-item form of the DFS contains seven scales, each with four to twelve items, each scale being based upon a factor around which test items cluster. Factor analysis of the deafness items yielded seven factors which parallel those found for amputation and blindness, and one factor specific to deafness. The subjects also completed questionnaires measuring attitudes toward blindness, amputation, and cosmetic conditions. The results with the DFS indicated a relatively favorable response to deafness compared with other disabilities, with bland rather than extreme reactions to deafness.

Using their ATDP scale, Yuker, Block, and Campbell (1960) attempted to measure deaf adults' attitudes toward deafness. They reported results for test groups ranging from deaf to normal hearing; most group differences did not reach significant levels.

In a study on adjustment to auditory disability in adolescence, Bobrove (1964) attempted to assess, comparatively, the adjustment of

deaf, hard-of-hearing, and normally hearing adolescents and to compare the mothers of these adolescents on their attitudes towards and understanding of their children. The attitude measures used in the assessment of maternal attitudes included the four subscales of the Situations Projective Test-A (SPT-A), the seven subscales of the Master Scale (the Californian [F and A] Scales), the Attitudes towards Deafness (AD) scale and the Dominance, Overprotection, Rejection and Acceptance Scales derived from the PARI (Parental Attitude Research Instrument). Of the total of 38 mothers, 17 were mothers of deaf children, nine were mothers of hard-of-hearing children and 12 were mothers of control children. No significant differences among the mother groups were found on any of the attitude measures.

In a study of generalized measure of attitudes toward disability, Cowen and Cowen (1964) developed a preliminary measure comparing attitudes toward deafness and blindness using a French college-aged sample, and studied, crossculturally, differences in attitudes toward visual disability. However, because the items used in the development of the instrument to measure attitudes toward deafness were adapted from items on an earlier attitudes toward blindness scale, there was a possibility that serious limitations existed in the validity of this preliminary scale. In a subsequent investigation, Cowen, et al. (1967) noted that there seemed to be a general attitude of indifference held toward the deaf, who are regarded in a less extremely negative manner than are several other disability groups (e.g., the blind). The investigators were careful to indicate, however, that a specific objective measure of attitudes towards auditory disability was lacking. The

instrument proposed for use in this study stems from this three-phased effort by Cowen, et al. (1967). The first study, to develop a final 25-item form for measurement of attitudes toward deafness is treated in depth in Chapter III. The second phase demonstrated flexibility in the use of the scale by determining interrelationships between anti-deafness and authoritarian, anti-Negro, and antiminority attitudes. The final phase ascertained that persons with high antideafness scores, in comparison to low antideafness peers, gave more negative ratings to a confederate wearing a hearing aid than they did to a non-disabled but behaviorally comparable confederate.

Another study (Blake, 1971) was conducted at the Hot Springs (Arkansas) Rehabilitation Center to assess the attitudes of incoming hearing students towards the deaf and deafness and to determine the impact of integration of hearing and deaf students at the Center on the attitudes of the hearing students towards the deaf. The attitude to deafness scale developed by Cowen, et al. (1967) was revised and administered to a sample of 46 persons before and after treatment of various types and frequencies with the deaf students during an enrollment period of eight weeks. The results indicated that the attitudes of the subjects toward the deaf and deafness were neutral or slightly positive before treatment and shifted to more favorable attitudes during the treatment period.

More recently Schroedel and Schiff (1971) conducted empirical studies involving several samples of deaf and hearing college students and professionals who were compared in terms of their attitudes towards deafness. They also compared their results with other results reported

in the literature reviewed by them. The two attitude scales that were used were the Attitude to Deafness Scale (ATD) developed by Cowen, et al. (1967) and the Disability Factor Scale (DFS-D) devised by Ferguson (1970). Samples of deaf subjects manifested more negative attitudes toward deafness than comparable samples of hearing subjects. Deaf respondents perceived hearing people's attitudes to be more negative towards deafness than was actually the case.

Summary

This chapter presented a review of related literature in four general areas: (1) concepts of attitude and opinions; (2) attitude scales; (3) attitudes toward disabilities, and (4) attitudes toward deafness.

Discussion on the several concepts of attitude and opinion was presented. There are no serious differences in the proffered definitions of these terms that would render empirical studies on attitudes and opinions somewhat tenuous.

The development of attitude scales in general was described and some of the guiding principles outlined. The growing field of social psychology has brought attitude scales to the forefront as an important experimental instrument.

Research was cited to show the recent development of scales to measure attitudes toward disabilities. A number of disability areas was included to illustrate the applicability of attitude scales in assessment of attitudes toward disabilities.

The research reviewed indicated that it was feasible to use the Attitudes to Deafness Scale for measurement of attitudes of rehabilitation counselors with the deaf and for investigation of possible relationships between attitudes and demographic variables.

And, finally, historical and prevalent attitudes towards deafness were discussed and some of the recent research studies dealing with this subject were reviewed. The literature revealed that during past centuries most societies held pervasive and persistent negative attitudes toward deafness and deaf persons. The recent studies, however, indicated that the misconceptions about deafness and its implications were giving way to an improved understanding and acceptance of deaf persons.

CHAPTER III

METHODOLOGY

Introduction

The methods and procedures used in the study are presented in this chapter. The chapter is divided into four major sections: (1) selection of the instrument, (2) selection of the subjects, (3) collection of the data, and (4) analysis of the data.

Selection of the Instrument

The principal purposes of this study were to measure attitudes of rehabilitation counselors with the deaf toward deaf adults, to compare attitudes of hearing and hearing-impaired counselors, and to discuss the implications of these attitudes for the well-being of deaf clients with whom counselors come in contact. More specifically, an attempt was made to answer the following questions:

1. Are rehabilitation counselors with the deaf generally positive or negative in their attitudes toward the deaf?
2. Do the attitudes of the hearing and hearing-impaired counselors differ significantly?
3. Does the extent of education and experience that the counselors possess play an important role in the formation of either negative or positive attitudes?

4. Do attitudes toward deafness differ significantly among the four counselor groups: (1) hearing rehabilitation counselors with the deaf, (2) hearing-impaired rehabilitation counselors with the deaf, (3) general rehabilitation counselors without any prior work experience with and with considerable exposure to deaf persons; and (4) professional persons in the counseling field without any work experience with or considerable exposure to deaf persons?

A mailed, self-administered questionnaire was adopted for use in this study. The scale used was developed by Bobrove (1964). The construction began with an adoption of the Attitudes to Blindness (AB) scale designed by Cowen, Underberg, and Verrillo (1958). All items concerning blindness were changed so that they concerned deafness, and 20 new items were written based on statements alluding to negative or positive attitudes towards the deaf found in the literature. The AB scale items had previously been analyzed as to whether they reflected positive or negative attitudes. The new items also needed to be rated. The 20 new items were submitted to five clinically trained judges including two advanced psychology graduate students, two Ph.D. psychologists and one psychiatrist. The judges were asked to rate the items as to whether they reflected positive or negative attitudes to deafness, or were irrelevant to the questions. Agreement of 100% was obtained on 18 of the items and of 80% on two of the items, all in the expected direction.

The resultant 50 items were then administered to 100 students attending night school classes in psychology. They were asked to rate the statements in terms of the intensity of their agreement or disagreement with each. The results of this administration were item-analyzed according to Flanagan's method (Walker and Lev, 1953). The item-test correlations ranged from zero to .83. Twenty-five items having the highest discriminating power were selected; the correlations of the resulting scale ranged from .43 to .83. The Attitude towards Deafness scale (AD) used in this study contains 21 negatively loaded items and four positively loaded items. (Appendix B contains the AD scale items together with their item-test correlations and indications of the directions of the attitudes.) The corrected split-half reliability for the initial 50 items was .88. The corrected split-half reliability coefficient for the final scale of 25 items was .83.

The AD scale was used in its entirety with one small exception. Instead of using the generic term the deaf, the term deaf persons was substituted. This procedure is in compliance with the current movement by the National Association of the Deaf to promote the concept of deaf persons as such rather than as a faceless member of a large group of people. Also, in labeling the questionnaire "Opinions about Deafness and Deaf Persons" rather than "Attitudes about...Persons" consideration was given to the possibility that the term opinions was less threatening and to the argument advanced by Nunnally (1959) that:

Although it is possible to distinguish opinions and attitudes with extreme examples the two are usually mixed to some extent in most questionnaire studies. For example, the statement "Negroes have lower intelligence than white people" is open to study and as such

is an opinion; but it also relates to how an individual feels about Negroes and is consequently an attitudinal statement as well (p. 286).

The use of mailed questionnaires has the advantage of including a large number of people in widely dispersed parts of the country with considerable savings in time and cost (Van Dalen, 1966). Since the four populations include subjects from all parts of the nation, this advantage became an important consideration. Of equal importance is the relative anonymity enjoyed by the respondents who are motivated to answer each statement more frankly and the total absence of personal antagonism to the investigator which could conceivably result in a refusal to give the desired information.

Kerlinger (1964) stated that mailed questionnaires often resulted in return rates as low as fifty or sixty percent. He cautioned that follow-up mailings may be required to increase the return rate to at least 80 percent or more. Precautions need to be taken to insure that the respondents returning the questionnaires are actually representative of the population under study.

A general information form was prepared to gain the following data: position and title, hearing status (hearing or hearing-impaired), amount of education in months, job experience in years and months, current caseload, and extent of exposure to deaf persons. This form was given to 15 hearing and 7 hearing-impaired faculty members of the Model Secondary School for the Deaf in an attempt to remove ambiguity in the wordings of the questions. All of the subjects in the pilot group were asked to respond to the statements as if they held positions as a counselor or other similar professional person

providing services to deaf persons. All 22 forms were returned completely filled with very few comments or suggestions for changing or improving the wordings on the form. All the suggested changes had to do with the syntax of the items on the form.

Selection of Subjects

There were four populations in this study and they included:

(1) hearing rehabilitation counselors with the deaf; (2) hearing-impaired rehabilitation counselors with the deaf; (3) general rehabilitation counselors without any prior experience with and with considerable exposure to deaf persons; and (4) professional persons in the counseling field without any prior experience with or considerable exposure to deaf persons. As stated in Chapter I, a rehabilitation counselor with the deaf (RCD) was defined as any counselor who devoted at least one fourth of his time to providing casework services to deaf persons.

Hearing and Hearing-impaired Counselor Populations (RCDs)

A list of hearing and hearing-impaired counselors with the deaf had been compiled by Tully (1971) who sent letters to the Directors of each of the 54 state vocational agencies requesting their assistance to obtain an up-to-date list. Parten (1950) commented that a mailing list that is not current is a common weakness of surveys. Because approximately two years had elapsed since Tully compiled his list, personal assistance was sought from Dr. Boyce Williams, Director, Office of Deafness and Communicative Disorders, Division of Disability Services, Rehabilitation Services Administration, U. S. Department of

Health, Education, and Welfare. He went over the list carefully and cross-checked the names and addresses against his office list. A tremendous turn-over in rehabilitation counselors had occurred in the space of two years. The remaining doubtful names and addresses were further checked and corrected by following through with telephone calls. The final list of rehabilitation counselors with the deaf had 199 names.

General Rehabilitation Counselors without Any Prior Experience with and with Considerable Exposure to Deaf Persons

A list of names and addresses of graduates of and participants in the rehabilitation counseling program at The University of Arizona had been compiled by Dr. Josef Afanador, Director, Student Services Office at The University of Arizona, in 1970. Using this list, an extensive follow-up investigation was conducted to bring the addresses up-to-date by calling several sources at The University of Arizona and the persons named on the list. The final updated list had 136 names on it.

Professional Persons in the Counseling Field without Any Prior Experience with or Considerable Exposure to Deaf Persons

A sample of 103 members of the American Rehabilitation Counseling Association (ARCA) was drawn randomly from a membership list of 1,549 names. The list was provided by Dr. Richard M. Thoreson, President of ARCA. The decision to draw a sample of approximately 100 subjects was purely arbitrary and predicated on the belief that the final 50 subjects to be included in the study could eventually be selected. The list supplied by Dr. Thoreson was organized alphabetically state by state and, in turn, the members were listed

alphabetically within each state group. To insure that all the members would have equal chance to be included in the sample, the membership list was reorganized entirely in alphabetical order without regard to geographical location. The selection of the first of the 100 subjects was from among the first 15 of the 1,549 names on the list by the use of a table of random numbers, following the procedure outlined by Edwards (1967, pp. 201,202). The first subject selected was the twelfth person on the list and every fifteenth person thereafter was selected for a total of 103 names.

Collection of the Data

Following the final compilation of names and addresses for the four populations included in this study, the collection of the data was begun and the procedures for data collection varied according to the different counselor populations.

Hearing and Hearing-impaired Counselor Populations (RCDs)

The questionnaire and general information sheet were printed by offset. The cover letter requesting cooperation of the counselors in filling out the forms was printed by offset on Model Secondary School for the Deaf letterhead stationery. Names, addresses and salutations were individually typed in such a way that only a very close examination could reveal which part of the letter was printed by offset and which by typewriter, thus giving each letter a personal touch. Each letter (see Appendix C) was accompanied by a copy of the general instruction sheet, the general information form, a letter of endorsement from Dr. Boyce Williams, a letter of endorsement from Mr. Craig

Mills, Director, Division of Vocational Rehabilitation, Department of Health and Rehabilitative Services, State of Florida, the questionnaire (Appendix A), and a stamped, addressed envelope. To encourage cooperation and interest, there was a provision on the general instruction sheet for each counselor to request a summary of the final report, if he so desired. The packets of letters and forms were mailed to all 199 rehabilitation counselors of the deaf on the list.

Approximately three weeks after the first mailing, a follow-up letter (Appendix C) and another complete packet of cover letters, forms and questionnaire was sent to all rehabilitation counselors with the deaf who had not yet responded. In addition, attached to the letter was a strip of paper (Appendix C), with the instruction that even if the respondent did not have the title Counselor, his response was still needed. Of the 199 RCDs contacted, 150 (75.4%) responded to the initial mailing and the follow-up mailing increased the total rate of return to 179 (89.9%). The initial mailing also had the effect of locating 29 more RCDs not on the original list. Survey packets were mailed to these 29 RCDs and 13 (44.8%) responded the first time. A follow-up mailing increased the total return to 28 for 96.6% rate of return. Thus, from a total of 228 persons on the revised list 163 (71.5%) questionnaires were obtained after the initial mailing. The follow-up mailing brought the final total count of questionnaires to 207 for 90.8% rate of return. There were ten packets that were returned due to lack of forwarding addresses. Only twelve persons failed to respond to the two mailings.

After separating the respondents who identified themselves as hearing-impaired from those who identified themselves as hearing, an analysis of the 207 respondents indicated that 165 (79.7%) persons were hearing RCDs and 42 (20.3%) persons identified themselves as hearing-impaired RCDs.

Of the 165 questionnaires from the hearing respondents, 97 (58.8%) were usable. The remaining 68 (41.2%) could not be used for the following reasons: (1) 51 (75.0%) did not meet the criterion on caseload (minimum of 25% of time spent in providing case services to hearing-impaired clients); (2) 10 (14.7%) respondents failed to complete all of the questionnaire; (3) 5 (7.4%) respondents were administrative persons or held positions other than counselor and did not provide direct case services; (4) 1 (1.5%) respondent declined to answer the questionnaire; and (5) 1 (1.5%) respondent made an error in filling out the general information form.

Two questionnaires from another counselor population that met all the criteria for hearing rehabilitation counselors with the deaf were added to the 97 questionnaires from hearing RCDs. Numbers from 00 to 98 were assigned to the forms and 50 subjects were selected randomly for inclusion in this study, employing the procedures described by Edwards (1967, pp. 201, 202).

Of the 42 questionnaires from counselors with the deaf who identified themselves as hearing-impaired, 36 (85.7%) were usable. Six (14.3%) were eliminated for the following reasons: (1) 5 (83.3%) respondents did not spend at least 25% of their time in providing case services to hearing-impaired clients; and (2) 1 (16.7%) respondent

was in an administrative position and did not provide direct case services. The number of eligible subjects was increased to 38 with the addition of two persons from another counselor population and were all included in this study.

General Rehabilitation Counselors without Any Prior Experience with and with Considerable Exposure to Deaf Persons

The same packet of letters, forms and questionnaire described earlier was sent to each person on the list. One difference was the addition of an item (Appendix C) which was attached to the general information sheet asking whether the person participated in the rehabilitation counseling training program at The University of Arizona before the fall of 1966, or after this time. This was necessary in order to separate those respondents who have had considerable exposure to deaf persons from those who had not. At least two deaf persons have participated in the program from September 1966 and the nature and the physical setting of the program were such that contacts between the two deaf persons and the other participants in the program were virtually unavoidable. They attended some classes in many cases with hearing participants, mingled with them at meetings and in the corridors between classes, participated in workshops, seminars or purely social affairs with them. Only those respondents who participated in the training program since September 1966 or who indicated considerable amount of exposure or interaction with deaf persons were included in the pool of eligible subjects. As before, approximately three weeks after the initial mailing, a follow-up packet was sent to all persons on the list who had not yet responded.

Of the 136 packets mailed out, 77 (56.6%) responded to the first mailing and a total of 98 (72.0%) responded after the second mailing. Eleven packets (8.1%) were returned due to lack of forwarding addresses.

Of the 98 questionnaires returned, 31 (31.6%) were usable. Sixty seven (68.4%) were unusable for the following reasons: (1) 44 (65.7%) respondents had experience providing case services to hearing-impaired clients; (2) 4 (6.0%) respondents held positions other than counselor; (3) 5 (7.5%) respondents were not in the field of rehabilitation; (4) 2 (3.0%) respondents had not had sufficient exposure to deaf persons; (5) 5 (7.5%) respondents were hearing-impaired themselves and were transferred to the appropriate counselor population; (6) 2 (3.0%) respondents met the criteria for hearing rehabilitation counselor with the deaf and accordingly was transferred to this population; (7) 3 (4.5%) respondents declined to answer the questionnaire; and (8) 2 (3.0%) questionnaires were improperly answered by persons other than those to whom the questionnaires had been addressed. All of the 31 eligible respondents in this counselor population were included in this study.

Professional Persons in the Counseling Field without Any Prior Experience with or Considerable Exposure to Deaf Persons

The same packet of letters, forms and questionnaire described in the previous subsection was sent to each of the 103 subjects.

The follow-up procedures described on page 43 were again employed with this counselor population. Of the 103 ARCA members

contacted, 58 (56.3%) responded to the initial mailing and the follow-up mailing improved the return rate to 81 (78.6%).

Of the 81 questionnaires that were returned, 30 (37.0%) were usable. Fifty one (63.0%) questionnaires could not be used for the following reasons: (1) 9 (17.6%) respondents were not in the rehabilitation field; (2) 27 (52.9%) respondents had had work experience providing case services to hearing-impaired clients; (3) 3 (5.9%) respondents carried some deaf clients on their caseloads; (4) 3 (5.9%) respondents had had considerable exposure to and interaction with deaf persons by virtue of having deaf relatives, attending classes with deaf persons or other similar circumstances; (5) 1 (2.0%) respondent failed to fill out the general information sheet; (6) 1 (2.0%) sent in an incomplete questionnaire; and (7) 7 (13.7%) respondents did not answer the questionnaire at all. All of the thirty eligible subjects were included in this study.

Method of Analysis

The questionnaire used in this study was made up of 25 items presented in a 4-point rating framework with no neutral point. Twenty one negative items and 4 positive items were included.

A maximum of 4 points was assigned to each item. Hence the possible range of scores was from 25 to 100. Agreement with the negative items indicated a negative attitude to deafness while agreement with the positive items indicated a positive attitude to deafness. The four positive items were items 5, 9, 13 and 22. For convenience

in scoring, these four positive items were reverse keyed. Higher scores on the scale indicated more negative attitudes to deafness.

The purpose of the general information sheet was to obtain information on respondents as it pertained to their professional position and the size and nature of their caseloads. This information was used to determine eligibility for inclusion in this study. Other areas of information covered were: (1) hearing status (hearing or hearing-impaired); (2) length in years and months of experience in working with deaf persons and hard of hearing persons in all areas; (3) the extent of exposure to deaf persons; (4) the highest degree held; and (5) the total amount of education in months. Information obtained on hearing status was used to separate questionnaires from hearing-impaired RCDs from those submitted by hearing RCDs. Item 4 determined the placement of the respondents in the appropriate counselor population category. Data from items 3, 5 and 6 were converted into number of months for the purpose of determining relationship with the attitude to deafness scores.

The data obtained from the administrations of the attitude scale and the general information sheet were hand tabulated and key-punched on cards, verified and fed into the PDP10 computer system at Gallaudet College, Washington, D.C. The computer program for analysis of variance used in this study was developed at The University of California at Los Angeles (Dixon, 1971) and labelled BMD 01V--Analysis of Variance for One-Way Design. This statistic and F test of significance were used to test Hypothesis I.

The computer program for Pearson product-moment coefficients of correlation was designed by Robert Herbold, Assistant Director, Gallaudet College Computer Center. This statistic was used to test Hypotheses II, III, IV, and V.

The .05 level of significance was used to accept or reject the hypotheses. Data were also presented in tables and brief statistical facts, not in tabular form, were analyzed in the sequential order of the general information sheet.

Summary

This chapter considered the selection of the instruments including their construction, the selection of subjects, the collection of the data and the treatment of the data.

CHAPTER IV

RESULTS OF THE STUDY

Introduction

Chapter IV presents the statistical analysis and research findings of the study. The chapter is divided into two main sections: the first presents descriptive data derived from the general information form and the other gives the results as they relate to the individual hypotheses.

Descriptive Data

This investigation was conducted using four different populations consisting of: (1) 50 hearing rehabilitation counselors with the deaf (RCDs); (2) 38 hearing-impaired rehabilitation counselors with the deaf (RCDs); (3) 30 general rehabilitation counselors without any prior experience with and with considerable exposure to deaf persons (University of Arizona graduates); and (4) 31 professional persons in the counseling field without any prior experience with or known extensive exposure to deaf persons (ARCA members). The general information form used to gather data for the purpose of placing respondents in the appropriate counselor population was made up of 8 questions. The responses to the general information forms from the eligible respondents can be found in Appendix D, Table 11 through Table 15.

Responses to Questions 2, 3, and 4 are discussed before a summary of the data for each counselor population is presented because the findings established the population categories on the basis of hearing status and position title.

Question 2: Do you have a hearing impairment (either deaf or hard of hearing)?

Question 2 was designed to provide accurate division of hearing-impaired respondents from the rest of the counselor population. Thirty five such counselors were identified in the RCD population, 3 in the University of Arizona population, and 3 in the ARCA population. The 3 ARCA hearing-impaired respondents were not included in this study because they did not meet the criterion for caseload. The total number of hearing-impaired counselors was increased to 38.

Question 3: Is your present job title Counselor?

Question 4: If no, your present job title is _____.

Table 1 shows that a large majority of the respondents had the title of counselor. Forty five (90%) hearing RCDs and 25 (65.8%) of hearing-impaired RCDs had the title of counselor. The remaining 18 (20.5%) hearing and hearing-impaired RCDs had a wide variety of titles for essentially the same position. With the University of Arizona group 17 (54.8%) of the respondents had the title of counselor while the remaining 14 (45.2%) respondents were psychologists, coordinators, specialists, and others who had counseling caseloads. These latter subjects were included because they volunteered on the general information form the fact that some time was devoted to counseling clients. Where there was no such indication, the respondent was eliminated as a subject. There were only 7 (23.4%) respondents among the ARCA

Table 1. A Summary of Job Titles of the Various Samples

| Title | Hearing RCD | | Hearing-impaired RCD | | Univ. of Ariz. Grads. | | ARCA Members | | Total | |
|---------------------|-------------|-------|----------------------|------|-----------------------|------|--------------|------|-------|-------|
| | N | % | N | % | N | % | N | % | N | % |
| Counselor | 45 | 90.0 | 25 | 65.8 | 17 | 54.8 | 7 | 23.3 | 94 | 63.1 |
| Psychologist | - | - | - | - | 5 | 16.1 | 5 | 16.7 | 10 | 6.7 |
| Casework Supervisor | 2 | 4.0 | 1 | 2.6 | - | - | 1 | 3.3 | 4 | 2.7 |
| Coordinator | 1 | 2.0 | 1 | 2.6 | 2 | 6.4 | 1 | 3.3 | 5 | 3.4 |
| Specialist | - | - | 3 | 7.9 | 1 | 3.2 | 1 | 3.3 | 5 | 3.4 |
| Supervisor | 1 | 2.0 | - | - | 1 | 3.2 | 2 | 6.7 | 4 | 2.7 |
| Others | 1 | 2.0 | 8 | 21.0 | 5 | 16.1 | 13 | 43.3 | 27 | 18.1 |
| Total | 50 | 100.0 | 38 | 99.9 | 31 | 99.8 | 30 | 99.9 | 149 | 100.1 |

Note: In each case the respondent reported major responsibility in counseling; otherwise he was not included in this study.

members who had the title of Counselor. There was an even wider range of titles; however, they all identified with the counseling field in a variety of positions. The combined figures for all four populations indicate that 94 (63.1%) of 149 respondents had the title of Counselor.

Table 12 through Table 15 in Appendix D presents a complete breakdown of the exact job titles reported by the respondents in the four sample populations.

Hearing RCDs

The data indicate that 15 (30.0%) of the 50 randomly selected hearing RCDs have caseloads consisting of hearing-impaired and other types of clients with at least 25% of their time devoted to providing case services to hearing-impaired clients. The remaining 35 (70.0%) are full time counselors with hearing-impaired clients.

Table 12 in Appendix D presents a complete breakdown of the exact job titles reported by the hearing RCDs.

Few of the hearing RCDs had had lengthy experience in the field of vocational rehabilitation. Twenty seven (54.0%) respondents had been in the field of vocational rehabilitation less than 4 years and 45 (90.0%) less than 7 years. The mean length of experience was 4.20 years and the median was 3.71 years. Table 2 presents a breakdown of the length of experience in vocational rehabilitation reported by the respondents in the hearing RCD population.

Thirty (60.0%) hearing RCDs had between one and four years experience in working with hearing-impaired persons in all areas. Two (4.0%) respondents reported having over 10 years experience with

Table 2. Years of Experience in Vocational Rehabilitation
(Hearing RCD)

| Years | N | % |
|-------------|----|-------|
| 11 or more | 2 | 4.0 |
| 10-11 | 0 | 0.0 |
| 9-10 | 0 | 0.0 |
| 8-9 | 3 | 6.0 |
| 7-8 | 0 | 0.0 |
| 6-7 | 5 | 10.0 |
| 5-6 | 9 | 18.0 |
| 4-5 | 4 | 8.0 |
| 3-4 | 7 | 14.0 |
| 2-3 | 12 | 24.0 |
| 1-2 | 7 | 14.0 |
| 0-1 | 1 | 2.0 |
| No response | 0 | 0.0 |
| Total | 50 | 100.0 |

Mean - 4.20

Median - 3.71

hearing-impaired persons, one (2.0%) having had over 25 years experience. Because of this one large number there was a considerable difference between the mean and median lengths of experience reported by the respondents, the figures being 3.78 and 2.85, respectively. The median figure was probably more representative of the hearing RCDs actual length of experience in working with deaf and hard of hearing persons in all areas. Table 3 gives a complete breakdown of the length of experience in working with deaf and hard of hearing persons reported on the general information form.

The hearing RCDs holding master's degrees outnumbered those with only a bachelor's degree, 27 (54.0%) to 20 (40.0%). Two (4.0%) counselors reported "certificate" as their highest degree but it was not clear if it was equivalent to a bachelor's degree or master's degree or if it was less than a bachelor's degree. One (2.0%) counselor reported no college degree. The mean amount of education beyond high school reported by 47 respondents on the general information form was 54.50 months. Three counselors did not respond to this question.

To summarize, the typical hearing RCD is a full time counselor with the deaf, has been in the field of vocational rehabilitation 4.20 years and has had 2.85 years experience in working with deaf and hard of hearing persons in all areas. He has had 54.50 months of education beyond secondary school and holds a master's degree.

Hearing-impaired RCDs

Of the 38 hearing-impaired RCDs, 33 (86.8%) respondents reported full time caseload with hearing-impaired clients and only

Table 3. Years of Experience in Working with Deaf and Hard of Hearing Persons in All Areas (Hearing RCD)

| Years | N | % |
|----------------|----|-------|
| Over ten years | 2 | 4.0 |
| 9-10 | 0 | 0.0 |
| 8-9 | 3 | 6.0 |
| 7-8 | 1 | 2.0 |
| 6-7 | 3 | 6.0 |
| 5-6 | 4 | 8.0 |
| 4-5 | 4 | 8.0 |
| 3-4 | 6 | 12.0 |
| 2-3 | 13 | 26.0 |
| 1-2 | 11 | 22.0 |
| 0-1 | 3 | 6.0 |
| No response | 0 | 0.0 |
| Total | 50 | 100.0 |

Mean - 3.78

Median - 2.85

5 (13.2%) indicated that they spent at least 1/4 time in providing case services to hearing-impaired clients but were not full time RCDs.

Table 13 in Appendix D presents a complete breakdown of the exact job titles reported by the hearing-impaired RCDs. The mean length of experience in the field of vocational rehabilitation possessed by hearing-impaired RCDs was slightly longer than that for the hearing RCDs, 4.50 years for hearing-impaired RCDs compared with 4.20 years for hearing RCDs. The median figure was 3.07 years. Four (10.5%) respondents reported over 12 years experience in the field of vocational rehabilitation while 25 (65.8%) counselors had under 4 years experience. Table 4 presents a breakdown of the lengths of experience in vocational rehabilitation as reported on the general information form by the respondents.

Twenty seven (73.0%) of the 37 hearing-impaired RCDs who responded to the question concerning length of experience in working with deaf and hard of hearing persons reported less than 8 years experience. Ten (26.4%) respondents reported over 12 years experience with deaf persons. For this reason the difference between the mean and the median was quite large, 7.54 and 5.01, respectively. Any attempts to portray a typical hearing-impaired RCD should consider the median rather than the mean for the length of experience in working with deaf and hard of hearing persons in all areas. A summary of the years of experience in working with deaf and hard of hearing persons is presented in Table 5.

Twenty two (57.9%) hearing-impaired RCDs held a master's degree while 14 (36.8%) had a bachelor's degree. Only one (2.6%) respondent

Table 4. Years of Experience in Vocational Rehabilitation
(Hearing-impaired RCD)

| Years | N | % |
|-------------|----|------|
| Over 12 | 4 | 10.5 |
| 11-12 | 0 | 0.0 |
| 10-11 | 0 | 0.0 |
| 9-10 | 0 | 0.0 |
| 8-9 | 1 | 2.6 |
| 7-8 | 0 | 0.0 |
| 6-7 | 4 | 10.5 |
| 5-6 | 2 | 5.3 |
| 4-5 | 1 | 2.6 |
| 3-4 | 7 | 18.4 |
| 2-3 | 7 | 18.4 |
| 1-2 | 7 | 18.4 |
| 0-1 | 4 | 10.5 |
| No response | 1 | 2.6 |
| Total | 38 | 99.8 |

Mean - 4.50

Median - 3.07

Table 5. Years of Experience in Working with Deaf and Hard of Hearing Persons in All Areas (Hearing-impaired RCD)

| Years | N | % |
|---------------|----|-------|
| Over 12 years | 10 | 26.4 |
| 11-12 | 0 | 0.0 |
| 10-11 | 0 | 0.0 |
| 9-10 | 0 | 0.0 |
| 8-9 | 0 | 0.0 |
| 7-8 | 4 | 10.5 |
| 6-7 | 1 | 2.6 |
| 5-6 | 4 | 10.5 |
| 4-5 | 2 | 5.3 |
| 3-4 | 3 | 7.9 |
| 2-3 | 7 | 18.4 |
| 1-2 | 4 | 10.5 |
| 0-1 | 2 | 5.3 |
| No response | 1 | 2.6 |
| Total | 38 | 100.0 |

Mean - 7.54

Median - 5.01

did not have a degree and one (2.6%) had a doctorate. The proportion of master's degree holders and bachelor's degree holders among the hearing RCDs and hearing-impaired RCDs were nearly similar, 54.0%:40.0% for the hearing RCDs as compared with 57.9%:36.8% for the hearing-impaired RCDs. The mean amount of education beyond high school reported on the general information form by 34 of the 38 respondents was 59.91 months.

A typical hearing-impaired RCD may be described as a full time counselor with the deaf who has been in the field of vocational rehabilitation 4.50 years and has had 5.01 years experience in working with deaf and hard of hearing persons in all areas. He also had 59.91 months of education beyond high school and now holds a master's degree.

University of Arizona Graduates

The University of Arizona graduates who comprise the counselor population without any prior experience with and with considerable exposure to deaf persons were selected as subjects only if they did not have any hearing-impaired client on their caseloads and had had no prior experience with deaf persons. Thirty one such general counselors were included in this study.

Table 14 in Appendix D presents a complete breakdown of the exact job titles reported by The University of Arizona graduates.

None of the subjects had more than 10 years experience in the field of vocational rehabilitation. The mean length of experience in the field was 4.23 years and the median was 3.50 years. Nineteen (60.0%) of the 30 counselors who responded to this item had less than

4 years experience. As was required by the design of this study, none of the work experience had been with deaf and hard of hearing clients. A summary of lengths of experience in vocational rehabilitation that the subjects in this population had is presented in Table 6.

All of the subjects in this population had at least a bachelor's degree. Only one (3.2%) respondent reported the bachelor's as being the highest degree held. Twenty three (74.2%) held master's degrees while 7 (22.6%) had earned doctorates. The mean amount of education beyond high school as reported by 29 of the 31 subjects on the general information form was 69.17 months.

The typical subject in this population is a general counselor who does not carry deaf clients on his caseload and has not had any experience in working with deaf and hard of hearing persons. He has been in vocational rehabilitation for 4.23 years. He has had 69.17 months of education beyond high school and holds a master's degree.

ARCA Members

The ARCA members were included in this study only if they were directly involved in the counseling field in the area of vocational rehabilitation and at the same time had had no prior experience with or considerable exposure to deaf persons. Only 30 such persons could be identified.

Table 15 in Appendix D indicates the wide range of position titles used by various professional persons in the counseling field. Only 7 (23.3%) had the title of counselor.

The mean length of experience in the field of vocational rehabilitation was 6.67 years which was spuriously high because 6 (20.0%)

Table 6. Years of Experience in Vocational Rehabilitation
(University of Arizona Graduates)

| Years | N | % |
|-------------|----|------|
| Over 10 | 0 | 0.0 |
| 9-10 | 3 | 9.7 |
| 8-9 | 1 | 3.2 |
| 7-8 | 0 | 0.0 |
| 6-7 | 4 | 12.9 |
| 5-6 | 2 | 6.4 |
| 4-5 | 2 | 6.4 |
| 3-4 | 10 | 32.2 |
| 2-3 | 4 | 12.9 |
| 1-2 | 3 | 9.7 |
| 0-1 | 1 | 3.2 |
| No response | 1 | 3.2 |
| Total | 31 | 99.6 |

Mean - 4.23

Median - 3.50

respondents reported over 12 years of experience and two of the six had over 20 years. The median length of experience was 3.50 years which was probably more representative of the ARCA members. As indicated in Table 7, 15 (51.7%) respondents had between 1 and 4 years of experience in vocational rehabilitation. One (3.3%) person did not respond to this item while one (3.3%) made an unusable entry on the general information form. The design of this study dictated that the subjects in this population be those who did not have any work experience with deaf clients.

One (3.3%) respondent had never been exposed to deaf persons while 7 (23.3%) had met deaf persons but did not have the opportunity to interact with them. Twenty two (73.3%) had met deaf persons and had some interaction with them. All other respondents who had had considerable exposure to deaf persons by virtue of having deaf relatives, having attended classes with deaf persons, having been employed at places where there were deaf workers, or other similar circumstances were eliminated as subjects.

The majority of the ARCA subjects had master's degrees (18 or 60.0%). Eight (26.7%) held earned doctorates and 3 (10.0%) had only bachelor's degrees. One (3.3%) reported having a 6th year degree but no further clarification was offered.

A rather surprisingly large number of the respondents chose not to answer the question concerning amount of education beyond high school. Only 18 (60.0%) ARCA members indicated the amount of education they had. The mean amount of education beyond high school that these respondents had was 73.30 months.

Table 7. Years of Experience in Vocational Rehabilitation
(ARCA Members)

| Years | N | % |
|-------------------|----|------|
| Over 12 | 6 | 20.0 |
| 11-12 | 1 | 3.3 |
| 10-11 | 2 | 6.7 |
| 9-10 | 0 | 0.0 |
| 8-9 | 0 | 0.0 |
| 7-8 | 0 | 0.0 |
| 6-7 | 1 | 3.3 |
| 5-6 | 1 | 3.3 |
| 4-5 | 2 | 6.7 |
| 3-4 | 3 | 10.0 |
| 2-3 | 5 | 16.7 |
| 1-2 | 7 | 23.3 |
| 0-1 | 1 | 3.3 |
| No response | 0 | 0.0 |
| Response Unusable | 1 | 3.3 |
| Total | 30 | 99.9 |

Mean - 6.67

Median - 3.50

The subject that is representative of the ARCA population in this study is a professional person in the counseling field who has had 3.50 years experience in vocational rehabilitation. He has only met some deaf persons and had some interaction with them but he never had considerable exposure to them by way of having deaf relatives, attending classes with deaf persons, working at the same place where there were deaf employees, or any other circumstances. He has had 73.30 months of education beyond high school and holds a master's degree.

Hypotheses

Hypothesis I

Hypothesis I stated that: There is no significant difference in attitudes among any of the following four groups:

- (a) Hearing rehabilitation counselors with the deaf;
- (b) Hearing-impaired rehabilitation counselors with the deaf;
- (c) General rehabilitation counselors without any prior experience with and with considerable exposure to deaf persons;
- (d) Professional persons in the counseling field without any prior experience with or considerable exposure to deaf persons.

The analysis of variance technique was employed to test the hypothesis. With 3 degrees of freedom for the greater mean square and 145 degrees of freedom in the lesser mean square, the F needed for significance at the .05 level was 2.67. As shown in Table 8, the obtained F value of 2.35 did not reach significance at the .05 level. Therefore, the null hypothesis was not rejected.

Table 8. Computer Computational Print Out Form

| | | | | |
|----------------------|----------------|---------|-------------|---------|
| Treatment Group | 1 | 2 | 3 | 4 |
| Sample Size | 50 | 38 | 31 | 30 |
| Mean | 51.2800 | 51.1842 | 47.4839 | 48.1667 |
| Standard Deviation | 6.1644 | 9.3516 | 7.9911 | 7.8744 |
| Analysis of Variance | | | | |
| | Sum of Squares | DF | Mean Square | F Ratio |
| Between Groups | 428.4352 | 3 | 142.8117 | 2.3468 |
| Within Groups | 8823.6991 | 145 | 60.8531 | |
| Total | 9525.1343 | 148 | | |

Source: (BMD0IV - Analysis of Variance for One-Way Design - Revised
June 24, 1969 Health Sciences Computing Facility, UCLA)

This result suggests that there was no significant difference in the attitudes toward deafness and deaf persons among the four groups of counselors.

Table 8 also indicates for the 4 samples the mean attitude scores and the standard deviations. These results have been ranked and summarized in Table 9. They are comparable to the results reported in other studies and summarized by Schroedel and Schiff (1971) and reproduced as Appendix E.

Hypothesis II

Hypothesis II stated that: There is no significant relationship between the amount of education in months and the attitudes of the hearing rehabilitation counselors with the deaf (RCD) as measured by the Opinions About Deafness and Deaf Persons Scale.

To test the hypothesis, the Pearson product-moment correlation coefficient was computed for the relationship between the amount of education and the raw scores derived from the tabulation of the attitude scale. With 45 degrees of freedom, the r needed for significance at the .05 level was 0.288. Table 10 showed the obtained r to be -0.10 which sustained the null hypothesis. There was no significant relationship between the amount of education that the hearing RCDs had and their attitudes toward deafness and deaf persons.

Hypothesis III

Hypothesis III stated that: There is no significant relationship between the amount of education in months and the attitudes of

Table 9. Mean Attitude Toward Deafness Scores of Four Counselor Groups, Ranked from Low to High

| Rank | Sample | N | Mean Score* | Standard Deviation |
|------|--|-----|-------------|--------------------|
| 1 | University of Arizona Graduates | 31 | 47.48 | 7.99 |
| 2 | American Rehabilitation Counseling Association Members | 30 | 48.17 | 7.87 |
| 3 | Hearing-impaired Rehabilitation Counselors with the Deaf | 38 | 51.18 | 9.35 |
| 4 | Hearing Rehabilitation Counselors with the Deaf | 50 | 51.28 | 6.18 |
| | | 149 | 49.84 | 7.99 |

* The lower the score, the more positive the attitude toward deafness is

Table 10. The Correlations and Sample Sizes of the Hearing and Hearing-impaired Samples for the Attitude to Deafness Scores, Amount of Education, and Job Experience

| <u>Hearing RCD</u> | | | |
|-----------------------------|------------|------------|-----------|
| Attitude to Deafness Scores | 1.00 (50) | | |
| Amount of Education | -0.10 (47) | 1.00 (47) | |
| Job Experience | -0.07 (50) | 0.23 (47) | 1.00 (50) |
| <u>Hearing-impaired RCD</u> | | | |
| Attitude to Deafness Scores | 1.00 (38) | | |
| Amount of Education | -0.22 (34) | 1.00 (34) | |
| Job Experience | -0.17 (34) | -0.15 (33) | 1.00 (37) |

the hearing-impaired rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

The Pearson product-moment correlation coefficient was computed to test this hypothesis. With 48 degrees of freedom, the required r for significance at the .05 level was .279. The obtained r as shown in Table 10 is -0.07 . The null hypothesis was not rejected. This result suggests that there was no significant relationship between the amount of education that hearing-impaired RCDs had and their attitude against deafness and deaf persons.

Hypothesis IV

Hypothesis IV stated that: There is no significant relationship between the length of job experience in months and the attitudes of the hearing rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

The Pearson product-moment correlation coefficient was computed to test the hypothesis. For significance at the .05 level, the required r with 32 degrees of freedom was 0.325. As indicated in Table 10, the obtained r value was -0.22 . The null hypothesis was sustained. This result suggests that there was no significant relationship between the length of job experience that the hearing RCDs had and their attitudes toward deafness and deaf persons.

Hypothesis V

Hypothesis V stated that: There is no significant relationship between the length of job experience in months and the attitudes

of the hearing-impaired rehabilitation counselors with the deaf as measured by the Opinions about Deafness and Deaf Persons Scale.

The hypothesis was tested by computation of the Pearson product-moment correlation coefficient. With 35 degrees of freedom, the required r for significance at the .05 level was 0.325. Table 10 showed the obtained r value to be -0.17, thus sustaining the null hypothesis. This result indicated a lack of significant relationship between the length of job experience that the hearing-impaired RCDs had and their attitudes toward deafness and deaf persons.

Summary

The results of the study were presented in this chapter. Descriptive data were presented first and were discussed in terms of the four counselor populations. Next the individual hypotheses were presented and their results were discussed.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

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

General Summary

A review of the literature indicated that attitude research in the area of disabilities was a rather recent development. The number of attitude scales to measure attitudes toward a variety of disability groups has increased sharply. Although a number of studies have been undertaken to determine the extent of negative or positive attitudes toward deafness and deaf persons, no information was available on the attitudes of hearing and hearing-impaired rehabilitation counselors with the deaf. None of these studies had attempted to investigate the possibilities of relationships between attitudes toward deafness and a number of factors that may be amenable to treatment.

Purpose

This study had the principal purpose of measuring the attitudes of rehabilitation counselors with the deaf toward deafness and deaf persons. The secondary purpose of this research was to determine the relationship between the counselors' attitudes and the length of

job experience and amount of education they possessed. To accomplish this, the following questions were asked in the study:

1. Are rehabilitation counselors with the deaf generally positive or negative in their attitudes toward the deaf?
2. Do the attitudes of the hearing and hearing-impaired counselors differ significantly?
3. Does the extent of education and experience that the counselors possess play an important role in the formation of either negative or positive attitudes?
4. Do attitudes toward deafness differ significantly among the four counselor groups: (1) hearing rehabilitation counselors with the deaf, (2) hearing-impaired rehabilitation counselors with the deaf, (3) general rehabilitation counselors without any prior work experience with and with considerable exposure to deaf persons; and (4) professional persons in the counseling field without any work experience with or considerable exposure to deaf persons?

Design

To answer the questions posed above, a mailed questionnaire was adopted and an accompanying general information form was developed. The questionnaire, Attitude to Deafness Scale, had been developed by Bobrove (1964) and tested by Cowen, et al., (1967) and consisted of a four-point 25-item rating scale. The general information form consisted of eight questions concerning caseload size, hearing status,

position title, length of work experience with deaf persons, extent of exposure to deaf persons, and amount of education.

The questionnaire and the general information form were sent to a total of 467 persons in the four counselor populations and were returned by 386 (82.7%). Of the 386 questionnaires returned, 149 (38.5%) were used in this study. They consisted of 69 usable questionnaires from 3 counselor populations and 50 questionnaires randomly selected from among 97 usable questionnaires from one counselor population. The information and data obtained from the questionnaires and the general information forms were computer-analyzed and the following null hypotheses were tested:

1. There is no significant difference in attitudes among any of the following four groups:
 - a. Hearing rehabilitation counselors with the deaf;
 - b. Hearing-impaired rehabilitation counselors with the deaf;
 - c. General rehabilitation counselors without any prior experience with and with considerable exposure to deaf persons;
 - d. Professional persons in the counseling field without any prior experience with or considerable exposure to deaf persons.
2. There is no significant relationship between the amount of education in months and the attitudes of the hearing rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

3. There is no significant relationship between the amount of education in months and the attitudes of the hearing-impaired rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.
4. There is no significant relationship between the length of job experience in months and the attitudes of the hearing rehabilitation counselors with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.
5. There is no significant relationship between the length of job experience in months and the attitudes of the hearing-impaired rehabilitation counselor with the deaf as measured by the Opinions About Deafness and Deaf Persons Scale.

Results

The analysis of the descriptive data in this study indicated that the typical hearing RCD is a full time counselor with the deaf. He has been in the field of vocational rehabilitation 4.20 years and has 2.85 years experience in working with deaf and hard of hearing persons in all areas. He has 54.5 months of education beyond secondary school and holds a master's degree.

The typical hearing-impaired RCD is described as a full time counselor with the deaf and has been in the field of vocational rehabilitation 4.50 years and has 5.01 years experience in working with deaf and hard of hearing persons in all areas. Holder of a master's degree, he has 54.5 months of education beyond high school.

The University of Arizona graduates of the rehabilitation training program were included in this study as representatives of the population consisting of general rehabilitation counselors without any prior experience counseling deaf persons, but with considerable exposure to deaf persons. The typical University of Arizona subject is a general counselor who does not carry deaf clients on his caseload and has not had any experience in working with deaf and hard of hearing persons. He has been in the field of vocational rehabilitation for 4.23 years. He has 69.17 months of education beyond high school and holds a master's degree.

For representatives of the population consisting of general rehabilitation counselors without any prior experience counseling deaf persons nor with considerable exposure to deaf persons, subjects were drawn from the membership of the American Rehabilitation Counselors Association. The typical ARCA subject is a professional person in the counseling field and has 3.50 years of experience in the field of vocational rehabilitation. He has no experience counseling deaf persons and no exposure to deaf persons. He has only met some deaf persons and had interaction with them. He has 73.3 months of education beyond high school and holds a master's degree.

The attitudes of the counselors in the four populations toward deafness and deaf persons were examined for possible differences. An analysis of the overall results indicated no significant difference in attitudes among the four groups at the .05 level.

For the hearing RCD sample, the mean attitude toward deafness score was 51.28 with a standard deviation of 7.32. In absolute terms,

then, the average score for the hearing RCD sample as a whole had a central response tendency clustering around Point 2 on the attitude scale, thus reflecting a slightly positive attitude to deafness.

The hearing-impaired RCD sample yielded a mean score of 51.18 which was remarkably close to the mean of 51.28 for the hearing RCDs. The standard deviation was 9.35 which may indicate a wider range of attitudes held by the hearing-impaired RCDs than those held by the hearing RCDs.

The mean attitude toward deafness score for the University of Arizona graduates was 47.48 with a standard deviation of 7.99. Although the analysis of variance with the resultant F ratio indicated no significant differences among the four groups, the University of Arizona sample seemed to reflect a slightly more positive attitude toward deafness than the two RCD samples.

The ARCA sample was more nearly like the University of Arizona sample with a mean score of 48.17 and a standard deviation of 7.87.

Attempts were made to determine if the extent of education and experience possessed by the counselors plays an important role in the formation of either negative or positive attitudes. Computation of correlation coefficients between the extent of education in months reported by the hearing RCDs and their attitudes to deafness scores yielded no significant relationship. No significant relationship was found between the lengths of job experience and these attitude to deafness scores. Similar findings were made in the case of the hearing RCDs.

Conclusions

To the extent that the four groups of counselors who participated in this study are representative of each respective total population; hearing RCDs, hearing-impaired RCDs, University of Arizona graduates of the Rehabilitation Training Program, and American Rehabilitation Counseling Association members, the following conclusions may be drawn:

1. Results indicated that the counselors in the four different populations had similar attitudes toward deafness and these were in a positive direction. Implication: Persons attracted to the area of counseling in vocational rehabilitation may be those who are generally accepting of others and do not, by nature, exhibit negative attitudes to any disability group.
2. Evidence was presented that the amount of education and the length of experience did not appear to be significant in the formation of positive or negative attitudes. Implication: Since it is generally accepted that attitudes consist of beliefs, feelings, and action tendencies towards persons, groups, or conditions and such beliefs, and feelings are not generated in a vacuum but rather are the results of the total sum of one's personality traits and experiences, it may be speculated that there are yet other demographic biographic variables that may be found to yield significant relationships with attitude to deafness scores.
3. Although mean scores and standard deviations of the hearing and hearing-impaired samples tested with the Attitude to

Deafness Scale were nearly identical, scores for the hearing-impaired sample showed a wider spread of opinions than the hearing sample did. The possibility exists that attitude scores of hearing-impaired persons reflect actual experiences, while hearing persons have not seriously thought much about their feelings toward deafness and offer a limited range of opinions about deafness. Implication: The various ages of onset of hearing-impairment and the varying severity of hearing-impairment could possibly lead to a wide range of attitudes toward deafness and thus create a larger standard deviation from the mean.

4. The overall findings suggest relatively positive conceptions of deafness. While the data obtained with the Attitude to Deafness Scale are probably valid, it is conceivable that the use of a seven-point scale instead of a four-point scale could have differentiated more definitively the scores among the four sample groups and thus reflect with greater certainty the influences of the length of experience and the amount of education on the formation of attitudes toward deafness.

Implication: Caution must be exercised in evaluating the relationships between the attitude to deafness scores and the lengths of experience and the amounts of education. The influences that could possibly be exerted by these factors upon attitudes toward deafness may require a finer discrimination in ratings or, more specifically, the use of a seven-point or a nine-point scale rather than a four-point scale.

5. None of the attitude scores differentiated among any of the four counselor groups. The conclusion that there was no difference among attitudes for the various groups should be tempered by a consideration of the possible limitation in the validity of the questionnaire used in this study. The decision to utilize the questionnaire method was based on the desire to retain a comparability between the results of this study and those preceding it. Implication: The lack of differences noted should be evaluated with caution. A more subtle measure of attitudes could possibly be developed to assess the finer differences among the attitudes which might have been present among the various counselor groups.
6. The results of this study were similar to those of earlier studies in which the Attitude to Deafness Scale was used. Each of these studies showed a trend toward positive attitudes toward deafness and deaf persons. Implication: Although there are reports in the literature of generally negative attitudes toward deafness among the general population, professional training in rehabilitation counseling may be a significant factor in the formation of positive attitudes toward deafness.

Recommendations

1. Replication of this study should be undertaken using a different instrument that has been validated against a similar sample

so that it will be possible to determine the extent to which the results of this study can be generalized.

2. Replication of this study or the conduct of similar investigations might be done using matched subjects so that variables such as education and experience may be controlled.

3. Future investigations of this type might include the measurement of attitudes toward the deaf at staggered time intervals, e.g., first day of employment, 8 weeks, 6 months, 1 year, and 2 years, to determine the effect of time (or experience) on the attitudes of hearing persons toward deafness and deaf persons.

4. Future studies might also include a test of knowledge of deafness and deaf persons, thus obtaining more objective data of the subjects' understanding of deafness and deaf persons than was achieved in this present study.

5. Rehabilitation training programs might give thought to the finding that those persons attracted to the counseling field tend to have relatively positive attitudes toward deafness. Probably those persons who may harbor negative attitudes toward deafness or disability in general are not likely to be interested in counseling as a career or are not likely to complete a training program in counseling. Thus, rehabilitation training programs might consider giving attitude tests to all entering trainees and conducting a longitudinal investigation to determine the relationship between the results of these tests and the trainees' extent of success in the training programs or in their subsequent careers.

6. Another intriguing alternative to the previous recommendation is a follow-up to this study wherein the study instruments would be administered to all entering trainees at the beginning of the two-year program, just before the completion of the program, and again one year after completion. The purpose of this procedure would be to determine whether there may be any changes in attitudes as a result of their participation in the training program and whether job experiences would tend to produce further changes.

APPENDIX A

QUESTIONNAIRE USED FOR COLLECTING DATA

OPINIONS ABOUT DEAFNESS AND DEAF PERSONS

Please circle the number to the right of each statement that best expresses how you feel about it.

1. Strongly Disagree 3. Agree
2. Disagree 4. Strongly Agree

| | Strongly Disagree | Disagree | Agree | Strongly Agree |
|--|-------------------|----------|-------|----------------|
| 1. Deaf persons generally have a less mature personality than hearing persons. | 1 | 2 | 3 | 4 |
| 2. In general, deaf people are more neurotic than those who hear. | 1 | 2 | 3 | 4 |
| 3. It is impossible to really get "close" to a deaf person. | 1 | 2 | 3 | 4 |
| 4. Deaf people somehow seem sadder and more wrapped up in themselves than hearing people. | 1 | 2 | 3 | 4 |
| 5. Deaf people do not seem to be bothered by ordinary life events any more than hearing people. | 1 | 2 | 3 | 4 |
| 6. Because of his need to be pitied, it is particularly important that the deaf person has someone with whom he can communicate. | 1 | 2 | 3 | 4 |
| 7. Deaf people also seem to have more than the usual number of other physical complaints. | 1 | 2 | 3 | 4 |
| 8. Deaf people show personality characteristics which frequently make them seem odd. | 1 | 2 | 3 | 4 |
| 9. A person who is deaf is as apt to be born a leader as anyone else. | 1 | 2 | 3 | 4 |
| 10. Deaf people seem to be overly polite. | 1 | 2 | 3 | 4 |
| 11. Most deaf people feel that they are worthless. | 1 | 2 | 3 | 4 |
| 12. Most deaf people are dissatisfied with themselves. | 1 | 2 | 3 | 4 |
| 13. Deaf people have as many interests as hearing people have. | 1 | 2 | 3 | 4 |
| 14. The deaf adult is not quite as mature or "grown-up" as the hearing adult. | 1 | 2 | 3 | 4 |
| 15. It is difficult to understand deaf people because they keep to themselves so much. | 1 | 2 | 3 | 4 |
| 16. It must be bitterly degrading for a deaf person to depend so much on others. | 1 | 2 | 3 | 4 |
| 17. On the whole, deaf children seem to be less intelligent than hearing children. | 1 | 2 | 3 | 4 |
| 18. I feel that deafness is as hard to bear as complete paralysis. | 1 | 2 | 3 | 4 |
| 19. A deaf person can not afford to talk back to people. | 1 | 2 | 3 | 4 |
| 20. You should not expect too much from a deaf person. | 1 | 2 | 3 | 4 |
| 21. A deaf person is constantly worried about what might happen to him. | 1 | 2 | 3 | 4 |
| 22. A deaf person is not afraid to express his feelings. | 1 | 2 | 3 | 4 |
| 23. Deaf people are more easily upset than people who can hear. | 1 | 2 | 3 | 4 |
| 24. Deaf people are prone to have many more fears about the world than hearing people. | 1 | 2 | 3 | 4 |
| 25. Deaf people are usually on their guard with hearing people. | 1 | 2 | 3 | 4 |

PLEASE CHECK TO MAKE SURE YOU HAVE RESPONDED TO EVERY STATEMENT

APPENDIX B

THE ATTITUDES TOWARDS DEAFNESS SCALE WITH ITEM TEST
CORRELATIONS AND DIRECTIONS OF SCORING^a

| <u>Items</u> | <u>Corr.</u> | <u>Direction</u> |
|---|--------------|------------------|
| The deaf generally have a less mature personality than the hearing. | .64 | N ^b |
| In general, deaf people are more neurotic than those who hear. | .74 | N |
| It is impossible to really get "close" to a deaf person. | .57 | N |
| Deaf people somehow seem sadder and more wrapped up in themselves than hearing people. | .59 | N |
| The deaf do not seem to be bothered by ordinary life events any more than hearing people. | .51 | P |
| Because of his need to be pitied, it is particularly important that the deaf person have someone very tolerant to whom he can talk. | .49 | N |
| Deaf people also seem to have more than the usual number of <u>other</u> physical complaints. | .46 | N |
| Deaf people show personality characteristics which frequently make them seem odd. | .64 | N |
| A person who is deaf is as apt to be born a leader as anyone else. | .46 | P |
| Deaf people seem to be overly polite and to lack spontaneity. | .48 | N |
| Most deaf people feel that they are worthless. | .59 | N |
| Most deaf people are dissatisfied with themselves. | .53 | N |

| <u>Items</u> | <u>Corr.</u> | <u>Direction</u> |
|--|--------------|------------------|
| It's difficult to understand the deaf because they keep so much to themselves. | .73 | N |
| It must be bitterly degrading for a deaf person to depend so much on others. | .62 | N |
| On the whole, deaf children seem to be less intelligent than hearing children. | .49 | N |
| I feel that deafness is as hard to bear as complete paralysis. | .57 | N |
| A deaf person can't afford to talk back to people. | .56 | N |
| You should not expect too much from a deaf person. | .48 | N |
| A deaf person is constantly worried about what might happen to him. | .60 | N |
| A deaf person is not afraid to express his feelings. | .51 | P |
| Deaf people are more easily upset than people who can hear. | .46 | N |
| The deaf are prone to have many more fears about the world than the hearing. | .72 | N |
| The deaf are usually on their guard with people. | .83 | N |
| The deaf have as many interests as the hearing have. | .52 | P |
| The deaf adult is not quite as mature or "grown up" as the hearing adult. | .56 | N |

^aThe Attitudes Towards Deafness Scale was developed by Bobrove (1964).

^bN indicates that agreement with the item reflects a negative attitude.

APPENDIX C
GENERAL INFORMATION FORM AND
SUPPLEMENTAL MATERIALS

COVER LETTER TO COUNSELORS

MODEL SECONDARY SCHOOL
FOR THE DEAF

GALLAUDET COLLEGE

KENDALL GREEN, WASHINGTON, D.C. 20002

January 17, 1972

Your cooperation is requested in a research study designed to yield information that will be of considerable value to the field of rehabilitation of deaf persons. In order to carry out this study, rehabilitation counselors throughout the country, randomly selected, are being asked to complete the enclosed general information sheets and questionnaire.

As you may know, there have been a number of similar investigations involving different populations and disabilities, but none which have dealt specifically with rehabilitation counselors and deafness. Hopefully, this study will also provide valuable information which will be important to the whole rehabilitation movement.

This project has been reviewed and endorsed by Dr. Boyce Williams, Director, Office of Deafness and Communicative Disorders, U.S. Department of Health, Education, and Welfare; and Mr. Craig Mills, Director, Division of Vocational Rehabilitation, State of Florida. Their letters of endorsement are attached for your information.

Your cooperation and assistance in this study will be greatly appreciated. After responding to the enclosed general information sheets and questionnaire, please return it to me in the addressed, stamped envelope provided. Complete confidentiality will be observed throughout this study. The name of the individual counselor will not appear in the final study. If you desire to have a report of the findings forwarded to you upon completion of the study, so indicate this on the general instruction sheet.

Sincerely, _____

Victor H. Galloway

Victor H. Galloway, Director
Division of Professional Services

VHG/cj
Enc.

GENERAL INSTRUCTION SHEET SENT WITH QUESTIONNAIRE

OPINIONS ABOUT DEAFNESS AND DEAF PEOPLE

GENERAL INSTRUCTIONS:

The twenty five statements that follow are opinions about deafness and deaf people. Read each sentence. Indicate your immediate impression by circling the number corresponding to the impression that best expresses how you feel about the statement. Please bear in mind that covers only deaf persons and not hard-of-hearing persons. To the right of each statement there are four numbers which represent the following choices:

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

Please respond to each statement. There is no right or wrong answer. Your own immediate response will be the best answer.

This survey is being sent to randomly selected rehabilitation counselors of the deaf and hard-of-hearing clients throughout the nation as well as to randomly selected general rehabilitation counselors.

Name: _____
(your name will be removed upon receipt of this survey)

Address: _____

Please return to:

Victor H. Galloway
Model Secondary School for the Deaf
Gallaudet College
Washington, D.C. 20002

Check box if you wish to have a summary of the final results of this study.

GENERAL INFORMATION FORMGENERAL INFORMATION

1. Percentage of time devoted to providing case services to deaf and hard-of-hearing clients?
 - a. none
 - b. less than 1/4 time
 - c. at least 1/4 time
 - d. full time.

2. Do you have a hearing impairment (either deaf or hard of hearing)?
 - a. yes b. no

3. Is your present job title Counselor?
 - a. yes b. no

4. If no, your present job title is:

5. How many years of experience in vocational rehabilitation?

_____ years and _____ months

6. How many years of experience in working with deaf and hard of hearing persons in all areas?

_____ years and _____ months

7. If no job experience with deaf persons, indicate the extent of your exposure to deaf persons:
 - a. never exposed to deaf person(s)
 - b. have met deaf person(s) but did not have the opportunity to interact with them.
 - c. have met deaf person(s) and had some interaction with them.
 - d. considerable exposure to deaf persons by virtue of having deaf relatives, attending classes with deaf persons, being employed at a place where there are deaf workers, or other similar circumstances.

8. Please indicate the highest degree held and amount of education you have had at each training level?

a. Highest degree held: _____

b. Total amount of education

| | | | |
|-------|---|-------|--------|
| _____ | doctorate (Ph.D., Ed.D.) | _____ | months |
| _____ | masters (MA, M.Ed., MS) | _____ | months |
| _____ | baccalaureate (BA, BS) | _____ | months |
| _____ | associate (AAS, AA) | _____ | months |
| _____ | special rehabilitation training programs (such as Univ. of Oregon and Univ. of Tennessee) | _____ | months |
| _____ | others | _____ | months |
| | | _____ | |
| | TOTAL | _____ | months |

THANK YOU VERY MUCH!

LETTER OF ENDORSEMENT

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
SOCIAL AND REHABILITATION SERVICE
WASHINGTON, D.C. 20201

December 16, 1971

REHABILITATION SERVICES
ADMINISTRATION

Mr. Victor H. Galloway
Model Secondary School for the Deaf
Callaudet College.
Washington, D.C. 20002

Dear Vic:

We are pleased to know of your study of the Attitudes of Vocational Rehabilitation Counselors of the Deaf Toward Deafness and Deaf People. The title indicates you will bring to light information that is important to the whole vocational rehabilitation movement.

We will be very interested in your findings and would appreciate an early copy of them.

If we can be of any further assistance, please let us know.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Boyce R. Williams".

Boyce R. Williams
Director, Office of Deafness
and Communicative Disorders

LETTER OF ENDORSEMENT

CLAUDE R. KIRK, JR.
GOVERNOR

STATE OF  FLORIDA

JAMES A. BAX
SECRETARY

CRAIG MILLS
DIVISION DIRECTOR

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
DIVISION OF VOCATIONAL REHABILITATION
254 Charley Johns Building
Tallahassee, Florida 32304

January 13, 1972

Mr. Victor H. Galloway
Model Secondary School for the Deaf
Gallaudet College
Washington, D. C. 20002

Dear Vic:

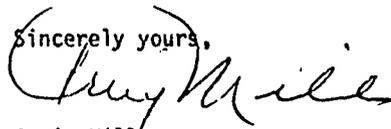
I have reviewed the outline of your proposed study on the Attitudes of Rehabilitation Counselors of the Deaf Toward Deafness and Deaf People. The study should be of considerable value to the field of rehabilitation of the deaf and I feel sure that State Directors and Counselors of the Deaf will be glad to cooperate.

At this time I am glad to give you my personal endorsement of the study and will do anything that I can to assist you in carrying it out with the sample of Counselors selected in Florida.

If your sample will include some Counselors from every State, I shall be glad to send a memorandum on this to all State Directors or to the Directors in those States you select.

Please let me know your time schedule on this and let me know how I can be of assistance to you.

Sincerely yours,



Craig Mills
Director
Division of Vocational Rehabilitation

CM:hk1

FOLLOW-UP LETTER TO COUNSELORS

MODEL SECONDARY SCHOOL
FOR THE DEAF

GALLAUDET COLLEGE

KENDALL GREEN, WASHINGTON, D.C. 20002

February 24, 1972

Recently, we mailed you a questionnaire entitled Opinions about Deafness and Deaf Persons. As yet, we have not received your response.

In order for this study to be valid and meaningful it is very important that we receive responses from as many persons on our list as possible. May we again ask that you complete the questionnaire as soon as possible and return it in the stamped, addressed envelope provided.

Even if your title is not Counselor or you do not provide services to deaf persons, your response is still needed.

Your cooperation is urgently needed and will be greatly appreciated.

Sincerely,

Victor H. Galloway, Director
Division of Professional Services

ADDITIONAL INSTRUCTION ATTACHED TO FOLLOW-UP LETTER

PLEASE NOTE

Even if your title is not Counselor or you do not provide services to deaf persons, your response is still needed.

ADDITIONAL ITEM ATTACHED TO THE GENERAL INFORMATION FORM
SENT TO ALL PERSONS ON THE UNIVERSITY OF ARIZONA LIST

FOR FORMER STUDENTS AT THE UNIVERSITY OF ARIZONA ONLY

I participated in the University of Arizona Rehabilitation training program

- a. before September 1966
- b. after September 1966
- c. through 1965-1966

APPENDIX D

GENERAL INFORMATION ON COUNSELORS

Table 11. Percent of Time Devoted to Providing Case Services to Deaf and Hard of Hearing Clients Reported by Respondents Included in This Study

| Time | Population | N | % |
|-------------------|------------------------------------|-----|--------|
| None | a. University of Arizona graduates | 31 | 20.80 |
| | b. ARCA members | 30 | 20.20 |
| At least 1/4 time | a. Hearing RCDs | 15 | 10.04 |
| | b. Deaf RCDs | 5 | 3.36 |
| Full time | a. Hearing RCDs | 35 | 23.40 |
| | b. Deaf RCDs | 33 | 22.20 |
| Total | | 149 | 100.00 |

Table 12. Job Title (Hearing RCDs)

| Title | N | % |
|---|----|-------|
| Counselor | 45 | 90.0 |
| Coordinator of Hearing- impaired Program | 1 | 2.0 |
| Counselor-Manager | 1 | 2.0 |
| Supervising Counselor | 1 | 2.0 |
| Casework Supervisor (Rehabilitation) | 2 | 4.0 |
| Total | 50 | 100.0 |

Table 13. Job Title (Hearing-impaired RCDs)

| Title | N | % |
|--|----|------|
| Counselor | 25 | 65.8 |
| State Consultant, Deaf and Hard of Hearing Services | 1 | 2.6 |
| State Director, Services to Hearing-impaired | 1 | 2.6 |
| Deaf Placement Specialist | 1 | 2.6 |
| Vocational Evaluator - Counselor | 1 | 2.6 |
| Consultant | 1 | 2.6 |
| Vocational Rehabilitation Specialist for the Deaf | 1 | 2.6 |
| Project Director, Services for Deaf | 1 | 2.6 |
| Specialist | 1 | 2.6 |
| Counselor-Manager | 1 | 2.6 |
| Rehabilitation Counselor for the Deaf | 1 | 2.6 |
| Casework Supervisor | 1 | 2.6 |
| Coordinator, Services to Deaf | 1 | 2.6 |
| Senior Rehabilitation Counselor | 1 | 2.6 |
| Total | 38 | 99.6 |

Table 14. Job Title (University of Arizona Population)

| Title | N | % |
|--------------------------------------|----|------|
| Counselor | 17 | 54.8 |
| Vocational Evaluator - Counselor | 1 | 3.2 |
| Project Coordinator | 1 | 3.2 |
| Rehabilitation Counseling Manager | 1 | 3.2 |
| Rehabilitation Counselor | 1 | 3.2 |
| Psychologist | 5 | 16.1 |
| Coordinator of Services | 2 | 6.4 |
| Psychometrist - Counselor | 1 | 3.2 |
| Supervisor | 1 | 3.2 |
| Specialist | 1 | 3.2 |
| Total | 31 | 99.7 |

Table 15. Job Title (ARCA Members)

| Title | N | % |
|--|----|------|
| Counselor | 7 | 23.3 |
| Psychologist | 5 | 16.7 |
| Director, Rehabilitation Counseling | 5 | 16.7 |
| Associate | 2 | 6.7 |
| Supervisor | 2 | 6.7 |
| Professor of Rehabilitation (has counseling caseload) | 2 | 6.7 |
| Teacher-Counselor | 1 | 3.3 |
| Casework Supervisor | 1 | 3.3 |
| Specialist | 1 | 3.3 |
| Human Resources Program Officer | 1 | 3.3 |
| Consultant | 1 | 3.3 |
| Therapist-Counselor | 1 | 3.3 |
| Urban Health Coordinator | 1 | 3.3 |
| Total | 30 | 99.9 |

APPENDIX E

TWELVE SAMPLES TESTED WITH THE ATD SCALE, MEAN SCORES RANKED FROM LOW TO HIGH (SCHROEDEL AND SCHIFF, 1971)

| Rank | Source | Sample | Location | Mean Score | Standard Deviation |
|--------------|----------------------|--------------------------------|---------------------------------|------------|--------------------|
| 1 | Schroedel and Schiff | 30 hearing professionals | N.Y.C. | 43.59 | 13.28 |
| 2 | Schroedel and Schiff | 30 hearing undergraduates | CCNY | 46.28 | 10.74 |
| 3 | Schroedel and Schiff | 13 deaf or hearing grads | NYU | 46.92 | 8.26 |
| 4 | Bobrove | 17 mothers of deaf children | Northeastern USA | 47.12 | 10.48 |
| 5 | Bobrove | 9 mothers of HoH children | Northeastern USA | 47.44 | 12.25 |
| 6 | Bobrove | 12 mothers of hearing children | Northeastern USA | 47.67 | 10.47 |
| 7 | Cowen et al. | 160 hearing undergraduates | Univ. of Roch., Rochester, N.Y. | 51.78* | ** |
| 8 | Blake | 24 hearing undergraduates | Univ. of Ark., Fayetteville | 51.78* | ** |
| 9 | Blake | 37 hearing college students | Univ. of Ark., Fayetteville | 52.20* | ** |
| 10 | Blake | 16 deaf professionals | Nationwide | 53.50* | ** |
| 11 | Schroedel and Schiff | 91 deaf college students | Gallaudet | 55.95 | 10.61 |
| 12 | Blake | 46 non-deaf disabled clients | Rehab. Center Hot Springs, Ark. | 59.15 | ** |
| 485 subjects | | | Grand Mean | 51.76 | |

*standard scores converted from scores using other scoring methods
 **standard deviation was not reported or was not convertible

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