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**An analysis of professional characteristics of rehabilitation
psychologists trained in clinical, counseling, and rehabilitation
psychology doctoral programs**

Kelley, Daniel Glen, Ph.D.

University of Illinois at Urbana-Champaign, 1991

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AN ANALYSIS OF PROFESSIONAL CHARACTERISTICS OF REHABILITATION
PSYCHOLOGISTS TRAINED IN CLINICAL, COUNSELING, AND
REHABILITATION PSYCHOLOGY DOCTORAL PROGRAMS

BY

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THESIS

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WE HEREBY RECOMMEND THAT THE THESIS BY

DANIEL GLEN KELLEY

ENTITLED AN ANALYSIS OF PROFESSIONAL CHARACTERISTICS OF REHABILITATION PSYCHOLOGISTS TRAINED IN CLINICAL, COUNSELING, AND REHABILITATION PSYCHOLOGY DOCTORAL PROGRAMS

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AN ANALYSIS OF PROFESSIONAL CHARACTERISTICS OF REHABILITATION
PSYCHOLOGISTS TRAINED IN CLINICAL, COUNSELING, AND
REHABILITATION PSYCHOLOGY DOCTORAL PROGRAMS

Daniel Glen Kelley, Ph.D.
College of Education
University of Illinois at Urbana-Champaign, 1991
Chrisann Shiro-Geist, Advisor and Chairperson

The rehabilitation psychology literature suggests many rehabilitation psychologists are not adequately trained for work in rehabilitation (Shontz & Wright, 1980) and that sound preparation can only be acquired through a rehabilitation psychology doctoral program (Golden, 1984). However, there are few published research studies to support this position. The purpose of this study was to determine whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

Eleven of the 26 research questions of this study indicated significant differences in objective and subjective professional characteristics of rehabilitation psychologists among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. However, none of the 11 significant differences obtained indicate or suggest respondents trained in clinical, counseling, or rehabilitation psychology doctoral programs are limited in their effectiveness as rehabilitation psychologists. The findings of this study indicate there are no significant differences in the perceived practitioner competencies, primary work settings, major functions, theoretical orientations, and primary goals for patients or clients among respondents trained in clinical, counseling,

or rehabilitation psychology doctoral programs. It appears that the skills and knowledge required to function effectively as a rehabilitation psychologist can be acquired during the internship or through work experience.

It is the conclusion of this study that rehabilitation psychologists trained in clinical, counseling, or rehabilitation psychology doctoral programs appear to be adequately prepared for work in rehabilitation. However, the results of this study must be cautiously interpreted due to the primary reliance on self-evaluations. The findings suggest that respondents from each type of doctoral program have unique strengths and contributions to offer the field of rehabilitation. It is the recommendation of this study that each type of doctoral program training persons interested in rehabilitation psychology provide such students with practicum experience in a rehabilitation setting and exposure to relevant rehabilitation psychology coursework.

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CHAPTER I

INTRODUCTION

General Description of Problem

The population of persons with disabilities is immense and will continue to increase (Fenderson, 1984). Estimates of the disabled population of working-aged persons in the United States varies from 8.5% to 17% (Asch, 1984). Recent federal statutes have clearly signaled, by recently enacted laws, that the 35 million Americans who have physical, sensory, developmental, and mental or emotional disabilities have the right to participate in our society (Deleon, Forsythe, & VandenBos, 1986). The field of psychology has been employed and instrumental in ameliorating the physical, social, and psychological barriers persons with disabilities experience in achieving their life goals (Fenderson, 1984). With the recognition that individuals with disabilities can be valuable, contributing members of society, rehabilitation psychology has slowly but increasingly been identified as a distinct and unique field of significant worth (Golden, 1984).

The training of rehabilitation psychologists is important to the outcome of rehabilitation (Shontz & Wright, 1980; Spear & Schoepke, 1981). Adequate training requires exposure to theories and principles in the classroom, knowledge of the literature, and practica in rehabilitation settings (Shontz & Wright, 1980). However, the majority of psychologists working in rehabilitation are not trained in rehabilitation psychology doctoral programs (Neff, 1971). Shontz and Wright

(1980) argue that it is not possible to learn rehabilitation psychology adequately through an internship or an on-the-job training program. The rehabilitation psychology literature (Gold, Meltzer, & Sherr, 1982; Shontz & Wright, 1980; Spear & Schoepke, 1981) suggests a significant disparity exists between the demand for competent rehabilitation psychologists and the adequate training in psychology doctoral programs of psychologists for work in rehabilitation.

Examples of the Problem

Most psychologists enter work in rehabilitation psychology subsequent to training in clinical or counseling psychology doctoral programs. The beginning of formal training in rehabilitation psychology usually occurs during the internship (Fraser, 1984). Due to a lack of academic and practical experience in rehabilitation psychology, the majority of interns are unprepared and experience difficulties adjusting to the rehabilitation internship (Gold et al., 1982).

The predominant psychological issues for patients in rehabilitation settings are feelings of isolation, loneliness, and depression (Dembro, Leviton, & Wright, 1975). These issues are related to the adjustment of loss or situational or environmental factors, such as the lack of independence, mobility, and devalued social attitudes (Thoben, 1975). Rehabilitation psychology interns, trained in clinical and counseling psychology doctoral programs, do not recognize that these feelings, as well as negative emotions, such as anger and anxiety, are an expected and healthy reaction to adjusting to disability and loss (Grzesiak, 1979).

Clinical and counseling psychology students are taught in their doctoral programs that symptoms are primarily external representations of psychological conflict or the result of faulty learning (Grzesiak, 1979). The clinical and counseling psychology intern's theoretical orientation is that the patient is responsible for and in control of life-events. These orientations are usually ineffective in rehabilitation because the intern focuses on the patient's pathology and limitations or the removal of undesirable behaviors (Grzesiak, 1979). To be effective, the rehabilitation psychology intern must learn a new theoretical orientation and therapeutic approach (Gold et al., 1982). The intern must recognize that disabilities are due to the loss or lack of properties of the person and are greatly affected by the reactions of other people, the environment, and the outside world (Dembro, Diller, Gordon, Leviton, & Sherr, 1973). The rehabilitation intern must also understand the views and perspectives of the person with disabilities, focus on the intactness rather than only on disabilities, appreciate the roles of significant others in the treatment of persons with disabilities (Dembro et al., 1975), and focus on reality-related difficulties (Dembro et al., 1973) that will provide the patient with a more accurate and realistic perspective of their disabling condition (Grzesiak, 1979).

Statement of the Problem

Most rehabilitation psychologists are not trained in rehabilitation psychology doctoral programs or psychology doctoral programs that include academic coursework and practica experience necessary for preparation in the field of rehabilitation psychology (Gold et al., 1982; Golden, 1984; Shontz & Wright, 1980).

The rehabilitation psychology literature suggests many rehabilitation psychologists are not adequately trained for work in rehabilitation (Shontz & Wright, 1980) and that sound preparation can only be acquired through a rehabilitation psychology doctoral program (Golden, 1984). Shontz and Wright (1980) argue that the adequate training of rehabilitation psychologists requires exposure to theories and principles in the classroom, knowledge of the literature, and practical experience in rehabilitation settings. The rehabilitation literature (Gold et al., 1982; Shontz & Wright, 1980; Spear & Schoepke, 1981) suggests a significant disparity exists between the demand for competent rehabilitation psychologists and the adequate training in psychology doctoral programs of psychologists for work in rehabilitation.

Purpose of the Research

The only current licensure requirement for rehabilitation psychologists is training in a psychology doctoral program (Wright, 1959). However, Golden (1984) and others (Gold et al., 1982; Shontz & Wright, 1980) suggest the academic coursework and practical experience necessary for preparation in rehabilitation psychology is currently available only in rehabilitation psychology doctoral programs. The purpose of this study was to examine whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

Significance of the Research

The rehabilitation psychology literature suggests many rehabilitation psychologists are not adequately trained for work in rehabilitation (Shontz & Wright, 1980) and that sound preparation can only be acquired through a rehabilitation psychology doctoral program (Golden, 1984). However, there are few published research studies to support this position. The purpose of this study was to determine whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs. Significant differences may suggest evidence regarding the most adequate training and preparation of rehabilitation psychologists by psychology doctoral programs. Similarly, no significant differences may suggest evidence regarding the parity of training and preparation of rehabilitation psychologists by psychology doctoral programs.

Definition of Terms

Individual with a disability: "Any person who has a physical or mental impairment which substantially limits one or more of such person's major life activities and a record of such an impairment or is regarded as having such an impairment" (Asch, 1984, p. 529). The federal definition of the rehabilitation population uses the term "handicapped," and many laws and sources of information define the same population as "disabled person" and "person with disability" (Asch, 1984). This study used each term according to reference.

Professional characteristics of rehabilitation psychologists: The characteristics examined in this study were categorized as either objective or subjective professional characteristics. The objective professional characteristics include educational background, professional background, and professional activities. The subjective professional characteristics include evaluation of academic preparation, perceived knowledge of rehabilitation psychology, theoretical orientation, primary goal for patients or clients, perceived practitioner competencies, work satisfaction, and attitudes toward disabled persons.

Rehabilitation: A process aimed to define, develop, and utilize the assets of the handicapped individual so as to achieve "restoration of the handicapped to the fullest physical, mental, social, vocational, and economical usefulness of which they are capable" (Lofquist, 1960).

Rehabilitation psychologist: "A psychologist that works in a rehabilitation setting" (Wright, 1959, p. 43).

Rehabilitation psychology: "A branch of psychology characterized by concern with problems of deprivation, disability, and their amelioration of life problems facing the handicapped" (Dembro et al., 1973, p. 719).

Rehabilitation psychology doctoral program: This term includes rehabilitation psychology and rehabilitation counseling psychology doctoral programs.

Underlying Assumptions

There is a major underlying assumption of this study. The underlying assumption is that graduates of a psychology doctoral program currently working in

the field of rehabilitation are a valid measure of the training and preparation received from such programs. The number of years of post-doctorate work experience may confound this assumption. Another confounding variable may be the primary reliance on self-evaluation as the method for obtaining data.

CHAPTER II

REVIEW OF THE LITERATURE

Background

The history of rehabilitation is closely allied with the field of psychology (Leung, 1984). The enormously high physical and emotional casualty rate following World War II resulted in an increased demand for rehabilitation medical personnel and psychologists (Grzesiak & Zaretsky, 1979). The two disciplines were assembled in 1949, when the National Council on Psychological Aspects of Disability was formed as a special interest group of the American Psychological Association (Gellman, 1973). At the end of the 1950s, to ascertain the optimal contribution of psychology to rehabilitation, the American Psychological Association received support from the Office of Vocational Rehabilitation of the U.S. Department of Health, Education, and Welfare, for an institute examining the role of psychology in rehabilitation. Prior to the institute, the participation of psychology in rehabilitation centered around three major events. In 1952, the American Psychological Association approved the request of the Veterans Administration for the training of counseling psychologists to work with veterans with physical and emotional disabilities (Leung, 1984). The enactment of the Vocational Rehabilitation Act in 1954 had a significant impact on the growth of rehabilitation; the legislation created teaching positions to train rehabilitation counselors, authorized research grants, and supported the development of additional training facilities and rehabilitation agencies

(Gellman, 1973). In 1958, the National Council on Psychological Aspects of Disability received status in the American Psychological Association as Division 22 (Rehabilitation Psychology). All three of these events, created a momentum and anticipation for further professional advances in the neophyte field of rehabilitation psychology.

Rehabilitation Psychology Conferences

There have been three major American Psychological Association sponsored conferences in the field of rehabilitation psychology. The first two conferences focused on the two fields of psychology and rehabilitation with regard to research and practice. The third conference focused on the distinctive characteristics of rehabilitation psychology (Shontz & Wright, 1980).

The Princeton Conference

The Princeton conference was held in Princeton, New Jersey, in 1958; 66 psychologists representing a variety of work settings and interests related to rehabilitation gathered to discuss the roles of psychology and psychologists in rehabilitation (Wright, 1959). Prior to the conference, surveys were mailed to over 150 Division 22 rehabilitation psychologists. A 70% return rate was obtained. The results of these surveys were used to determine the necessity of creating a separate specialty and doctoral program for the training of rehabilitation psychologists.

To determine whether a separate specialty for psychologists in rehabilitation was warranted, the functions of psychologists in rehabilitation were compared to the

functions of clinical and counseling psychologists (Wright, 1959). The former was indicated by the Survey of Functions and the latter by the job specifications for U.S. Service Examiners of the Veterans Administration (Wright, 1959). The comparison suggested that the functions of psychologists in rehabilitation (treatment, diagnosis, interdisciplinary coordination, consultation, education, training, and research) were not unique to the field of rehabilitation and therefore, rehabilitation psychologists did not require a separate specialty or training program. It was recommended that the only requirement necessary for psychologists in rehabilitation be training at the doctoral level and that inclusion of relevant coursework and field experience be added to general psychology programs (Wright, 1959). The decision recommending no specialty for psychologists in rehabilitation affirmed the field was "so broad as to have room for all kinds of psychologists" (Wright, 1959, p. 43).

The Princeton conference concluded rehabilitation psychology did not require the creation of a separate specialty or training program at the doctoral level (Wright, 1959). From the survey, the Princeton conference recommended the following: greater attention be afforded to realistic social-milieu; increased focus on reality counseling as it relates to the patients' needs; and assets and limitations of persons with disabilities be given due weight (Wright, 1959). The Princeton conference's recommendations, as well as their definition of a rehabilitation psychologist as "any psychologist whose work is guided by the rehabilitation point of view" (Wright, 1959, p. 43), have contributed to a lack of distinction and identity in the field of rehabilitation psychology (Leung, 1984). Wright (1959) observed "the Princeton conference tended to be cautious in its recommendations primarily

because it saw danger in premature closure at a time when the participation of psychologists in rehabilitation was expanding so rapidly" (p. 89).

Miami and Monterey Conferences

The Miami conference was held in Miami, Florida, in 1960; the participants at the conference were research psychologists primarily interested in the area of psychology. The Miami conference attempted to identify specific research contributions psychology might make to rehabilitation, and secondly, to motivate psychologists toward more research on the problems in rehabilitation (Lofquist, 1960).

The Monterey conference was held in Monterey, California, in 1970. The conference was "an attempt to assess the present state of knowledge and art in a specialized area of science and service that had come to be known as rehabilitation psychology" (Neff, 1971, p. iii). The same issues that were unresolved at the Princeton conference were discussed and unanswered at the Monterey conference. In summary, each of the three conferences failed to resolve the issue of definition, specialization, and training (Neff, 1971).

Contributions of Rehabilitation Psychology

A review of the history and contributions of rehabilitation psychology indicates the field has a distinctive body of theory, research, and problem-solving approaches (Barker, Wright, Meyerson, & Gonick, 1953; Dembro, Leviton, & Wright, 1975; Meyerson, 1971; Shontz & Wright, 1980; Vineberg & Williams, 1971; Williams, 1972; Wright, 1960). The unique nature of rehabilitation psychology

includes the Lewinian tradition of field-theory, the role of the environment, and the importance of the individual as part of the process (APA, 1970, 1979; Shontz & Wright, 1980; Wright, 1959). However, the perspective that rehabilitation psychology is primarily an attitude and value system, which originated from the conclusions of the 1958 institute, has contributed to the field's lack of identity and, consequently, training programs (Leung, 1984).

Rehabilitation psychology overlaps many areas of psychology, extending from clinical to medical, social, personality, counseling, learning, and motivation (Golden, 1984). Traditionally, rehabilitation psychology has not been regarded as a separate specialty, and consequently, did not develop guidelines for a psychology doctoral program (R. Fraser, personal communication, July 7, 1989).

More recently, rehabilitation psychology has been recognized as a distinct and unique field of significant worth (Golden, 1984). It has also been recognized that rehabilitation psychologists need to be trained in rehabilitation psychology doctoral programs (APA, 1979; Shontz & Wright, 1980). Shontz and Wright (1980) and others (Gold et al., 1982; Golden, 1984) suggest training and preparation in rehabilitation psychology requires academic coursework and practica experience that is currently only available in rehabilitation psychology doctoral programs. If these concerns are valid, psychologists and psychology doctoral programs, working with or inadequately training students for work with disabled persons, respectively, are in violation of the ethical standards of psychologists (APA, 1977) and in violation of a federal regulation, the Rehabilitation Act of 1973 (Section 504), that ensures quality of service for all handicapped persons (Spears & Schoepke, 1981). Therefore, the

controversy over the training of psychologists in rehabilitation has serious ethical and legal ramifications.

Doctoral Training of Rehabilitation Psychologists

Rehabilitation Psychology Literature

Most psychologists enter rehabilitation psychology subsequent to training in clinical or counseling psychology and have an interest in applying their skills to people with disabilities (Golden, 1984). However, the psychologist in a rehabilitation setting needs specific knowledge of the nature of disabilities, the effects of functional limitations, and the importance of understanding the person with disabilities (Gold et al., 1982). Additionally, the psychologist needs to be aware of personal and environmental assets that promote the rehabilitation process, diagnostic and intervention techniques, knowledge of the physical and medical aspects of disability, and a comprehensive understanding of the team approach (Gold et al., 1982). The rehabilitation process is most frequently an interdisciplinary effort which requires ongoing interaction with medical doctors, physical therapists, speech pathologists, and occupational therapists, with the rehabilitation psychologist functioning as a fellow member and consultant to the group (Fordyce, 1981, 1982; Melvin, 1980; Palmer, Conn, Siebens, Pence, & Michael, 1985; Purtilo, 1988; Rothberg, 1971, 1981, 1985).

The rehabilitation psychology intern, from a clinical or counseling psychology doctoral program, often experiences difficulty adjusting to the rehabilitation

internship (Gold et al., 1982). Difficulties are created by the necessity of acquiring a vast amount of new information, modifying concepts of professional functioning, confronting emotional responses to disability, and developing an orientation for effective participation on the multidisciplinary rehabilitation team (Dembro et al., 1973, 1975; Spear & Schoepke, 1981). These experiences require the intern to reevaluate, modify, and expand the professional role taught in graduate school (Gold et al., 1982). Sherr (1975) states that due to the modified and varied roles of psychologists in rehabilitation, to function effectively the intern must learn a new professional role. Traditional clinical and counseling skills are necessary, but a different philosophical and value orientation, as well as the previously stated competencies, are also needed (Gold et al., 1982). Gold et al. (1982) conclude psychologists trained in clinical and counseling psychology doctoral programs and have not been exposed to the distinctive body of theory, research, and therapeutic approaches and interventions in rehabilitation psychology, are often restricted in their effectiveness in rehabilitation internships.

Clinical and Counseling Psychology Literature

The clinical and counseling psychology literature on doctoral training of psychologists entering the field of rehabilitation is sparse (Gold et al., 1982). The sparsity of research studies and articles on doctoral training in rehabilitation in clinical and counseling psychology journals may be due to a lack of awareness that their graduates are entering the field of rehabilitation. Grzesiak (1979) indicates that there is no clear evidence in either the rehabilitation psychology literature or

the clinical and counseling psychology literature that suggests significant differences in the process and outcome of therapy with the disabled.

Current Status of Rehabilitation Psychology Doctoral Programs

There is a strong consensus in the rehabilitation psychology literature that rehabilitation psychologists need to be trained in rehabilitation psychology doctoral programs (APA, 1979; Shontz & Wright, 1980). In 1977, the American Psychological Association defined criteria for the identification of a specialty which included a sequential academic curriculum and a professional training program (Leung, 1984). The Ad Hoc Committee, in 1979, operationalized the American Psychological Association's academic curriculum into a basic core of graduate study: principles of rehabilitation psychology theories and research in rehabilitation psychology, history of rehabilitation practice, medical psychology, and health care delivery systems (Leung, 1984).

The Ad Hoc Committee also urged that at least five specialized areas be covered in a training program: unique aspects of rehabilitation psychology, psychological situations of handicapped persons, impact of environment on people with disabilities, assessment procedures with handicapped persons, and intervention and remedial procedures (Leung, 1984). The Ad Hoc Committee concluded rehabilitation psychology is primarily psychological and therefore the core requirements of any rehabilitation psychology doctoral program need to follow the American Psychological Association's training standards. Despite the recent efforts to develop

an academic curriculum, there is currently no universally implemented guideline for doctoral programs in rehabilitation psychology (R. Fraser, personal communication, July 7, 1989).

Current Doctoral Training of Rehabilitation Psychologists

Most rehabilitation psychologists are not trained in rehabilitation psychology doctoral programs (Shontz & Wright, 1980) or doctoral programs that include academic coursework or practica experience necessary for training and preparation in rehabilitation psychology (Gold et al., 1982). In recent years there has been a decrease in the number of doctoral programs in rehabilitation psychology due to reductions in federal funding (Leung, 1984). The majority of psychologists entering rehabilitation are trained in clinical or counseling psychology programs. If rehabilitation psychology is to continue and grow, Golden (1984) asserts a rehabilitation psychology doctoral program standard must be developed under guidelines of the American Psychological Association and Division 22 (Rehabilitation Psychology). Shontz and Wright (1980) suggest rehabilitation psychology can be organized into a separate program of doctoral study or as a specialty within a clinical or counseling doctoral program.

Summary

A review of the history and contributions of rehabilitation psychology indicate the field has a distinctive body of theory, research, and problem-solving

approaches (Shontz & Wright, 1980). Traditionally, rehabilitation psychology has not been regarded as a separate specialty. More recently, rehabilitation psychology has been recognized as a distinct and unique field of significant worth (Golden, 1984).

The absence of a lucid and thorough definition of the rehabilitation psychologist has contributed to the rejection of a separate specialty (Golden, 1984) and to the lack of rehabilitation psychology doctoral programs (Gold et al., 1982) and guidelines (R. Fraser, personal communication, July 7, 1989). Consequently, most rehabilitation psychologists are not trained in rehabilitation psychology doctoral programs or doctoral programs which include academic coursework or practice necessary for training and preparation in the field of rehabilitation psychology (Gold et al., 1982; Golden, 1984; Shontz & Wright, 1980). There is a strong consensus in the rehabilitation psychology literature that rehabilitation psychologists need to be trained in rehabilitation psychology doctoral programs.

CHAPTER III

METHOD

This chapter will initially provide a brief description of the methodology and research design of this study. Subjects and sampling procedures will also be discussed. A description of the instrumentation and procedures will then follow. Statistical procedures which were used in the analysis will be outlined. The research questions for this study will conclude this chapter.

Description of the Methodology

This study employed descriptive and quasi-experimental research methodologies. A descriptive research methodology was used to systematically describe and analyze objective and subjective professional characteristics of the rehabilitation psychologist. The objective professional characteristics include educational background, professional background, and professional activities. The subjective professional characteristics include evaluation of academic preparation, perceived knowledge of rehabilitation psychology, theoretical orientation, primary goal for patients or clients, perceived practitioner competencies, work satisfaction, and attitudes toward disabled persons. A quasi-experimental research methodology was used to examine whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation doctoral programs.

Description and Rationale of the Research Design

This study employed a posttest-only design with nonequivalent groups. The design is diagrammed in Figure 1 with X1 and X2 representing different treatments (doctoral program), 0 representing observations (survey), and the dashed line indicating the groups are not randomly formed (Campbell & Stanley, 1966).

This research design is not normally sufficient for permitting strong tests of causal hypotheses because it fails to rule out plausible alternative interpretations; the lack of pretests lead to the possibility that any differences between the groups may be attributed to either treatment effects or selection differences (Cook & Campbell, 1979). However, due to the lack of availability of pretest observations, the posttest-only design with nonequivalent groups was the most appropriate for addressing the research questions of this study.

Subjects

The subjects of the present study are members in Division 22 (Rehabilitation Psychology) of the American Psychological Association. A complete listing of the members of Division 22 was obtained through the Directory of the American Psychological Association (APA, 1989). A random sample of 150 Division 22 members and a stratified sample of 57 Division 22 members trained in rehabilitation psychology were selected. The additional 57 rehabilitation psychology trained respondents were selected to insure an adequate number of respondents trained in rehabilitation psychology doctoral programs. Additionally, an advertisement urging

the participation of non-Division 22 rehabilitation psychologists was placed in the Journal of Rehabilitation Education. The surveys were mailed to 207 of the 928 members (22%) of Division 22.

Instrumentation

Each of the measures used in the present investigation are described in the following section. The measures in this study were employed to examine characteristics of the rehabilitation psychologist which the rehabilitation psychology literature suggests may be limitations or deficits. The measures employed were Minnesota Satisfaction Questionnaire (MSQ), Measurement of Attitudes Toward the Disabled (ATDP), Rehabilitation Skills Inventory (RSI), and Rehabilitation Psychologist Survey (RPS).

Minnesota Satisfaction Questionnaire (MSQ)

The Minnesota Satisfaction Questionnaire (MSQ) short-form, developed by Weiss, Dawis, England, and Lofquist (1966), is a measure of an employee's satisfaction with his or her job (Appendix A). The MSQ was normed on a sample of more than 4,000 professional and non-professional employed workers. The short-form MSQ is based on the 20 items of the long-form MSQ that best represent each of the 20 scales. The short-form MSQ can be scored on three scales: intrinsic satisfaction, extrinsic satisfaction, and general satisfaction. The intrinsic satisfaction scale consists of 12 items measuring ability utilization, achievement, activity,

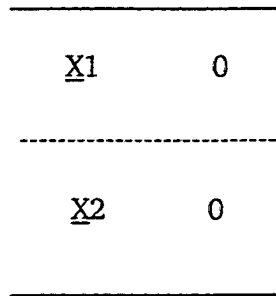


Figure 1. Posttest-only design with nonequivalent groups.

advancement, compensation, co-workers, creativity, independence, moral values, social service, social status, and working conditions. The extrinsic satisfaction scale consists of eight items measuring authority, company policies, recognition, responsibility, security, supervision-human relations, supervision-technical, and variety. The general satisfaction scale includes all 20 items which appear on the intrinsic satisfaction scale combined with the extrinsic satisfaction scale.

Reliability of the short-form MSQ (internal consistency) for the intrinsic satisfaction scale Hoyte reliability coefficients ranged from .84 (for the two assembler groups) to .91 (for engineers). For the extrinsic satisfaction scale, the Hoyte reliability coefficients varied from .77 (for electronic assemblers) to .82 (for engineers and machinists). On the general satisfaction scale, the Hoyte reliability coefficients varied from .87 (for assemblers) to .92 (for engineers). Median reliability coefficients were .86 for intrinsic satisfaction, .80 for extrinsic satisfaction, and .90 for general satisfaction (Weiss, Dawis, England, & Lofquist, 1966).

The stability and validity of the short-form MSQ may, in part, be inferred from data on the long-form MSQ. Test-retest reliability for the long-form MSQ yielded coefficients of .89 over a one-week period and .70 over a one-year period. Evidence for the validity of the short-form MSQ is available from studies of occupational groups differences and studies of the relationships between satisfaction and satisfactoriness, as specified by the theory of work adjustment. Evidence supporting construct validity for the MSQ is derived indirectly from construct validation studies of the Minnesota Importance Questionnaire (MIQ) based on the theory of work adjustment. Evidence for concurrent validity of the MSQ is derived from the study of group differences in satisfaction, especially occupational differences in satisfaction. These studies have indicated that the short-form MSQ can differentiate among occupational groups (Weiss, Dawis, England, & Lofquist, 1966).

The short-form MSQ has a 5-point Likert type response format: 1 = very dissatisfied, 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied, and 5 = very satisfied. The short-form MSQ is self-administering with directions on the first page of the questionnaire.

Raw scores for the intrinsic, extrinsic, and general satisfaction scales were obtained and differences among rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs were analyzed on all three satisfaction scales.

Measurement of Attitudes Toward Disabled Persons

The Measurement of Attitudes Toward Disabled Persons (ATDP), developed by Yuker, Block, and Youngg (1970), is a measure of non-disabled and disabled persons' attitudes toward disabled persons as a group (Appendix B). The ATDP was normed on a sample of more than 3,800 non-disabled and disabled males and females. Research with the ATDP has suggested the usefulness of separate normative data for males and females, as well as non-disabled and disabled persons. Three alternate forms of the ATDP have been developed. Form O, the original and shortest form, consists of 20 items. The resulting score range for the ATDP-O (form) is from 0 to 120 with a high score reflecting more positive attitudes towards disabled persons as a group.

Yuker et al. (1970) indicate there have been many studies in which the reliability of the ATDP has been reported. The results of these studies indicate that the ATDP-O has a degree of reliability comparable to other attitude scales of similar length. Stability measures of reliability for the ATDP-O indicate coefficients ranging from .66 to .89 with a median of approximately .73. Split-half equivalence reliability for the ATDP-O indicate reliability coefficients ranging from .75 to .85 (Yuker et al., 1970).

Evidence for the validity of the ATDP-O is based largely upon construct validity. It was predicted that persons with low ATDP-O scores would be more likely to behave in a prejudicial and non-accepting manner, while persons with high ATDP-O scores would behave in a non-prejudicial and accepting manner. The validity of the ATDP-O was measured by correlating ATDP-O test scores with a

number of other variables. The results indicate evidence in support of the construct validity of the ATDP-O (Yuker et al., 1970).

The ATDP-O is self-administering with directions for the respondent on the first page of the questionnaire. The questionnaire contains 20 items to which the subject responds to a 6-point Likert-type response format: +3 = agree very much, +2 = agree pretty much, +1 = agree a little, -1 = disagree a little, -2 = disagree pretty much, and -3 = disagree very much.

The resulting score range on the ATDP-O is from 0 to 120 with a high score reflecting more positive attitudes. A high score indicates the respondent perceives individuals with disabilities as being quite similar to non-disabled persons (Yuker et al., 1970). A low score indicates the respondent perceives individuals with disabilities as being "different" or "disadvantaged or inferior" to non-disabled persons. Differences between the group scores of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs were analyzed. Separate norms for males and females were employed.

Rehabilitation Skills Inventory (RSI)

The Rehabilitation Skills Inventory (RSI), developed by Wright, Leahy, and Shapson (1987), is a self-report device for assessing the "importance" and level of "attainment" of rehabilitation practitioners' competencies (Appendix C). The RSI project sampled over 3,600 practitioners in the rehabilitation field. The RSI is a 114-item questionnaire which assesses both the self-reported importance and level of attainment of 10 clusters of competencies: vocational counseling, assessment

planning and interpretation, personal adjustment counseling, case management, job placement, group and behavioral techniques, professional and community involvement, job analysis, and assessment administration. Ratings of both importance and attainment of competencies are derived from self-reports based on a 5-point Likert-type response format: 0 = none, 1 = little, 2 = moderate, 3 = high, and 4 = maximal. A mean score for each of the 10 clusters of competency is obtained.

The use of self-report as a measure of the importance and level of attainment of competencies was based on the assumption that rehabilitation practitioners are willing to accurately respond to such a survey. Many of the competencies included in the RSI cannot be directly assessed by peers or supervisors; therefore, the practitioner is the most appropriate evaluator of the importance and level of attainment of his or her competencies. (Leahy et al., 1987).

Evidence for the validity of the RSI is based upon content validity. The content validity of the RSI is founded on the types of items selected from research efforts in which content validation was based on functional job analysis procedures. Content validity is also suggested by the development methodology employed in the construction, field trials, and pretesting of the instrument (Leahy et al., 1987).

For purposes of this study, only the level of attainment of 4 of the 10 competency clusters were employed. There were two primary reasons for reducing the 114 items RSI to 43 items. First, only 4 of the 10 clusters of competencies were equally applicable for rehabilitation practitioners (master's degree) and rehabilitation psychologists (doctorate degree). The four clusters of competencies include (number of items in each cluster): assessment planning and interpretation (8), personal

adjustment counseling (13), case management (17), and professional and community involvement (5). The second reason for constructing a short-form of the RSI was to reduce the amount of time to respond to the questionnaire, thereby increasing the potential return rate of the respondents. The 43 items were in the same order of presentation as the RSI, minus the 71 omitted items. The reliability coefficients of the four clusters of competencies are .91 (assessment planning and interpretation), .92 (personal adjustment counseling), .91 (case management), and .93 (professional and community involvement) (Wright et al., 1987).

The mean scores for each of the four clusters of competencies were calculated for rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs. Differences between psychologists trained in clinical, counseling, and rehabilitation psychology programs were analyzed on all four clusters of competencies.

Rehabilitation Psychologist Survey (RPS)

The Rehabilitation Psychologist Survey (RPS) (see Appendix D), developed for the purposes of the present investigation, is a self-administering measure of rehabilitation psychologists' objective and subjective professional characteristics. Demographic data (age, race, sex, residence, and income) were also examined. The objective professional characteristics include educational background, professional background, and professional activities. Educational background examined doctoral program, highest academic degree obtained, and setting of pre-doctoral internship. Professional background included licensure status and the number of years of post-

doctorate work experience. Professional activities examined primary work setting, major functions performed, the assessment measures the respondents can competently utilize, and percentage of time spent every week with disabled and nondisabled populations.

The subjective professional characteristics of rehabilitation psychologists include evaluation of academic preparation, perceived knowledge of rehabilitation psychology, theoretical orientation, and primary goal for patients or clients. The evaluation of academic preparation examined the perceived level of difficulty adjusting to the first post-doctoral work experience and the adequacy of the doctoral programs' preparation of respondents for work in rehabilitation. Perceived knowledge of rehabilitation psychology included knowledge of theory and research. Theoretical orientation examined the theoretical orientations of respondents, the theoretical orientations taught by doctoral programs, and the theoretical orientations at work settings as perceived by the respondents.

The respondents indicated their responses by circling the appropriate number; demographic data questions required fill-in-the-blank responses. The RPS consists of 26 questions which requires approximately 5 minutes to complete.

Bolton (1985) reports that surveys are the most reliable and valid method of obtaining information about individuals that cannot be directly observed by peers or supervisors. Content validity of the survey is suggested by the development methodology used in the pretesting of the instrument.

Procedures

The survey was mailed to the subjects' work address during the second week of November. Enclosed was a cover letter signed by the president of Division 22 and the chairperson of the Education and Training Committee of Division 22 (Appendix E). The cover letter stated the importance of the study and requested the subjects' participation. Directions were provided for the survey. The subjects were requested to return the survey in the self-addressed, business-reply envelope folded inside the survey. During the first week of December, surveys were mailed to subjects who had not returned the first survey. A coding system was used to identify subjects to ensure confidentiality.

Analysis of the Data

The analysis for this study included the following: descriptive statistics, Chi-Square Likelihood Ratio, and one-way analysis of variance (ANOVA) statistics. For all these analyses, the independent variable was doctoral program and the dependent variables were as follows: Minnesota Satisfaction Questionnaire (MSQ), Measurement of Attitudes Toward Disabled Persons (ATDP), Rehabilitation Skills Inventory (RSI), and Rehabilitation Psychologist Survey (RPS). The statistical level of significance was selected at $p < .05$ for all tests.

The rationale for the inclusion of each of these analyses will be briefly discussed. Descriptive statistics were used to summarize the frequencies and

percentages of responses of the random sample. Cross-tabulations were employed to compare categorical data among groups using the Chi-Square Likelihood Ratio. The one-way analysis of variance (ANOVA) was used to make statistical comparisons of interval data among groups.

The cross-tabulations and one-way ANOVA were selected to examine comparisons among the following groups of doctoral programs:

1. Clinical Psychology
2. Counseling Psychology
3. Rehabilitation Psychology

Research Questions

Objective Professional Characteristics

Research questions for objective professional characteristics include:

Educational background:

1. Do differences exist in the highest academic degree obtained among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?
2. Do differences exist in the settings of the pre-doctoral internship among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Professional background:

3. Do differences exist in the licensure status among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

4. Do differences exist in the number of years of post-doctorate work experience among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Professional activities:

5. Do differences exist in the primary work settings among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

6. Do differences exist in the major functions performed among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

7. Do differences exist in the ability to competently utilize assessment measures among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Subjective Professional Characteristics

Research questions for subjective professional characteristics include:

Evaluation of academic preparation:

8. Do differences exist in the perceived difficulty adjusting to the first work experience in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

9. Do differences exist in the perceived adequacy of doctoral programs' preparation for work in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Perceived knowledge of rehabilitation:

10. Do differences exist in the perceived knowledge of theory in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

11. Do differences exist in the perceived knowledge of research in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Theoretical orientation:

12. Do differences exist in the primary theoretical orientations respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

13. Do differences exist in the primary theoretical orientations taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

14. Do differences exist in the primary theoretical orientations at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Primary goal for patients or clients:

15. Do differences exist in the primary goals for patients or clients among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

16. Do differences exist in the primary goals for patients or clients taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

17. Do differences exist in the primary goals for patients or clients at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Perceived practitioner competencies:

18. Do differences exist in perceived assessment skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

19. Do differences exist in perceived counseling skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

20. Do differences exist in perceived case management skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

21. Do differences exist in perceived professional and community involvement skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Work satisfaction:

22. Do differences exist in intrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

23. Do differences exist in extrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

24. Do differences exist in general work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Attitudes toward disabled persons:

25. Do differences exist in the attitudes toward disabled persons among male respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

26. Do differences exist in the attitudes toward disabled persons among female respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

CHAPTER IV

RESULTS

The purpose of this study was to compare objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs. To provide a background overview of rehabilitation psychologists, an examination of a random sample of Division 22 members will also be presented.

The analyses included descriptive statistics, Chi-Square Likelihood Ratio, and one-way analysis of variance (ANOVA). Descriptive statistics were used to summarize the frequencies and percentages of responses of the random sample. Cross-tabulations were employed to compare categorical data among groups using the Chi-Square Likelihood Ratio. The one-way ANOVA analyses were used to make statistical comparisons of interval data among groups. The following types of doctoral programs were compared:

1. Clinical Psychology
2. Counseling Psychology
3. Rehabilitation Psychology

Analyses were performed using a SPSS-X statistical software program. The results of these analyses will be presented in a background overview of rehabilitation psychologists followed by the research questions in the order illustrated in Chapter III.

Background Overview of Rehabilitation Psychologists

A random sample of 150 members of Division 22 of the American Psychological Association was selected for this study. A complete listing of the members of Division 22 was obtained through the Directory of the American Psychological Association (1989). Additionally, an advertisement urging the participation of non-Division 22 rehabilitation psychologists was placed in the journal of Rehabilitating Education. To determine the representativeness of the returned surveys to the random sample, the percentages of the sexes and the type of doctoral programs were compared. The random sample is comprised of 76% male and 24% female; the returned surveys were 77% male and 23% female. The random sample was trained primarily in clinical psychology (37%), followed by counseling psychology (24%), rehabilitation psychology (22%), and other psychology doctoral programs (17%). The returned survey respondents were also trained primarily in clinical psychology (40%), followed by counseling psychology (27%), rehabilitation psychology (24%), and other psychology doctoral programs (9%). With reference to sex and doctoral program, the similar percentage compositions of the returned surveys, and the random sample suggest the findings of this study may be generalized to the total population of Division 22 rehabilitation psychologists. The limited survey return of non-Division 22 rehabilitation psychologists did not allow for a comparison of Division 22 and non-Division 22 rehabilitation psychologists; the two surveys returned by non-Division 22 rehabilitation psychologists were not included in the

analyses. Therefore, the findings of this study can be generalized only to Division 22 rehabilitation psychologists.

From the random sample of Division 22 rehabilitation psychologists, a 61% return rate (92) of surveys was obtained of which 89% was used in the study (12 surveys were returned incomplete or indicated retirement). Demographic data indicate that approximately 95% of respondents reported their race as white and 5% Black, Oriental, Asian, or Hispanic. The mean age of the respondents is 48 years old with a standard deviation of 12 years. Respondents' residence, by region of the country, was reported as Northeast (35%), South (17%), Midwest (18%), West Coast (17%), Southwest (8%), and Mountain (5%). The mean personal annual income is \$68,860 with a standard deviation of \$20,190.

Objective Professional Characteristics

Responses to the educational and professional background characteristics of rehabilitation psychologists indicate the respondents were trained primarily in clinical psychology (40%), followed by counseling psychology (27%), rehabilitation psychology (24%), and other psychology doctoral programs (9%) (see Figure 2). Ninety-two percent of the respondents indicated their highest academic degree was a Ph.D. Respondents reported the settings of their pre-doctoral internship were hospital or medical centers (34%), veterans administration hospitals (30%), mental health agencies (8%), university counseling centers (8%), other settings (10%), and no internship (10%) (see Figure 3). The mean number of years of post-doctorate

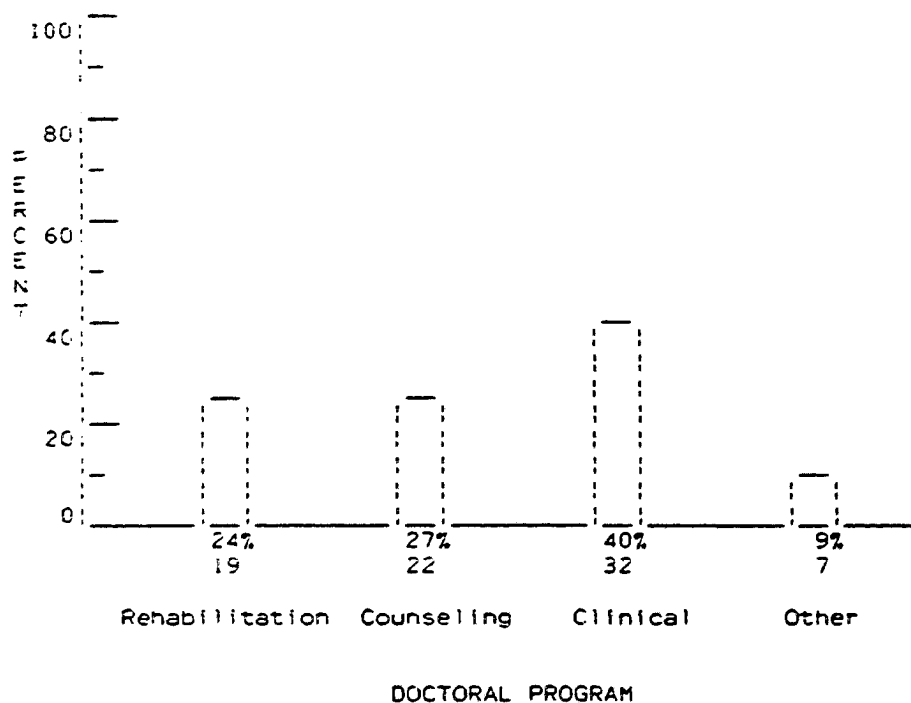


Figure 2. Distribution of random sample respondents by doctoral program. (Numbers below percentages represent the number of responses for each doctoral program category; $n = 80$). **Note.** Graph bars are represented to the nearest 5%.

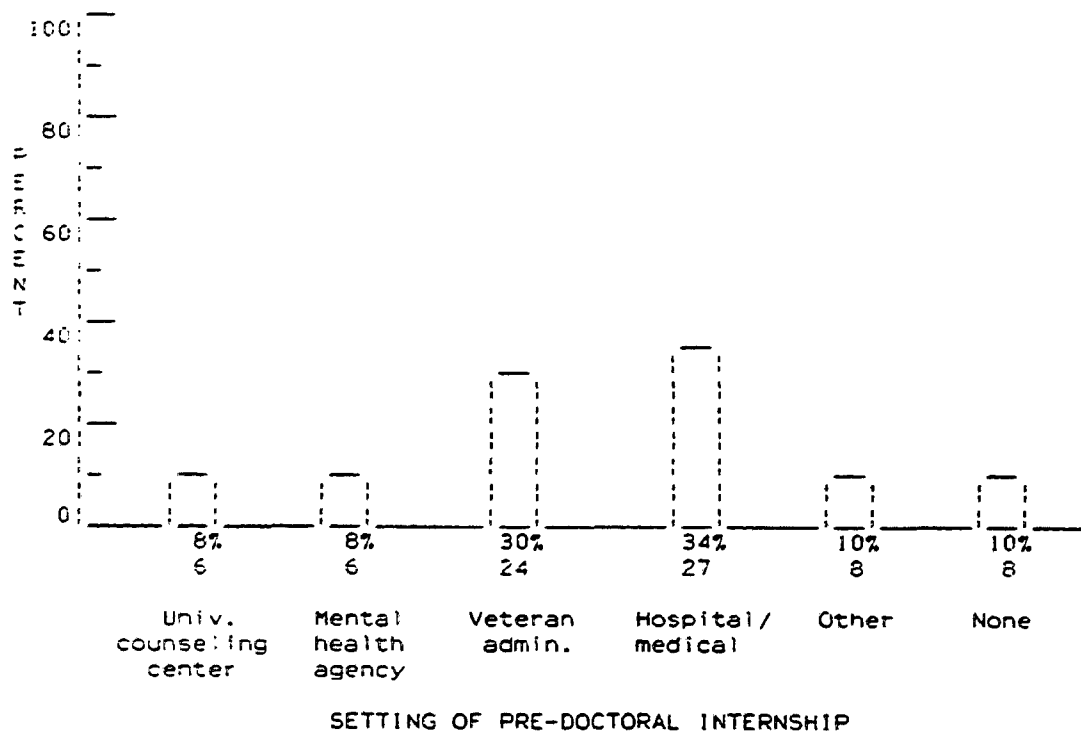


Figure 3. Distribution of random sample respondents by setting of pre-doctoral internship. (Numbers below the percentages represent the number of responses for each setting of pre-doctoral internship category; $n = 79$.) **Note.** Graph bars are represented to the nearest 5%.

work experience is 15 with a standard deviation of 10 years. Ninety percent of respondents indicated they are licensed psychologists.

Responses to professional activities indicate respondent's work in treatment centers (35%), colleges or universities (27%), private practice (24%), federal or state agencies (11%), and other work settings (3%) (see Figure 4). The percentage of respondents performing each major function at their primary work setting is 51% therapy, 48% assessment, 44% training and education, 39% professional consultation, 26% research, and 24% other major functions (see Figure 5). The percentage of respondents able to competently utilize each assessment measure is 87% intelligence, 86% personality, 52% neuropsychological, 51% vocational, and 19% other (see Figure 6). The question requesting the respondents to estimate the percentage of time spent every week with each population was not included in the analyses due to the low response rate (52%) and inaccuracy of completed responses (46%).

Subjective Professional Characteristics

Responses to the evaluation of academic preparation indicate relative to academic training, 15% of respondents reported above average difficulty, 33% reported average difficulty, and 52% reported below average difficulty adjusting to their first work experience in rehabilitation (see Figure 7). With regard to the adequacy of doctoral programs' preparation for work in rehabilitation, 10% of respondents indicated less than adequate preparation, 44% indicated adequate preparation, and 46% indicated more than adequate preparation (see Figure 8).

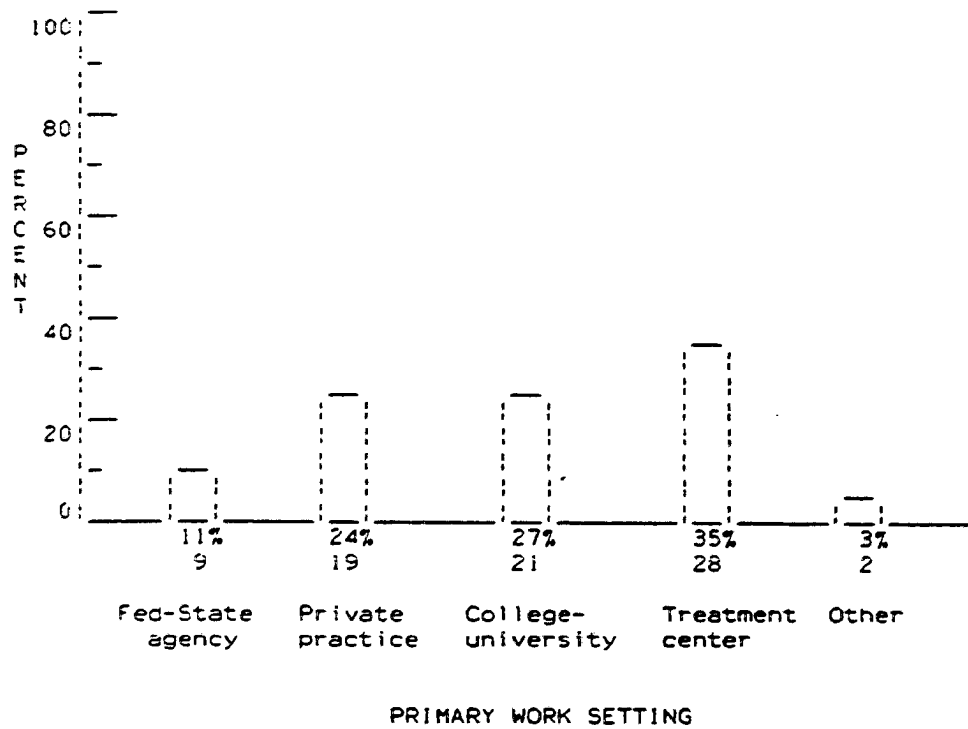


Figure 4. Distribution of random sample respondents by primary work setting. (Numbers below percentages represent the number of responses for each primary work setting category; $n = 79$.) **Note.** Graph bars are represented to the nearest 5%.

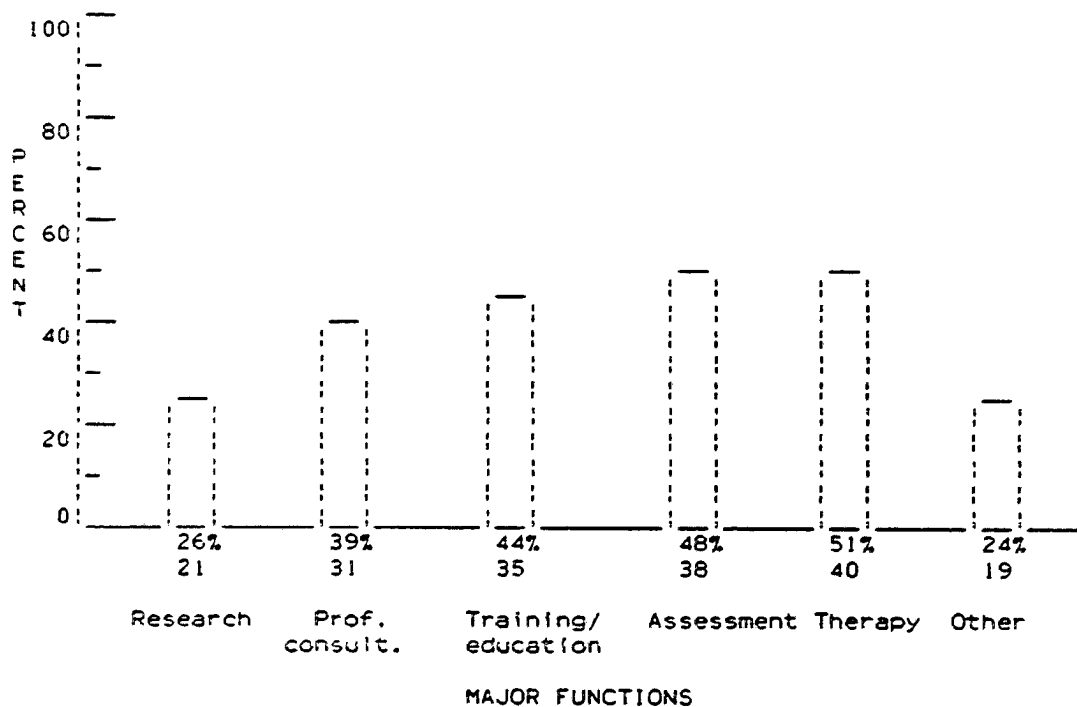


Figure 5. Percentage of random sample respondents performing each major function. (The respondents indicated multiple responses for a total of 184 responses. Numbers below percentages represent the total number of responses for each major function category; $n = 79$.) Note. Graph bars are represented to the nearest 5%.

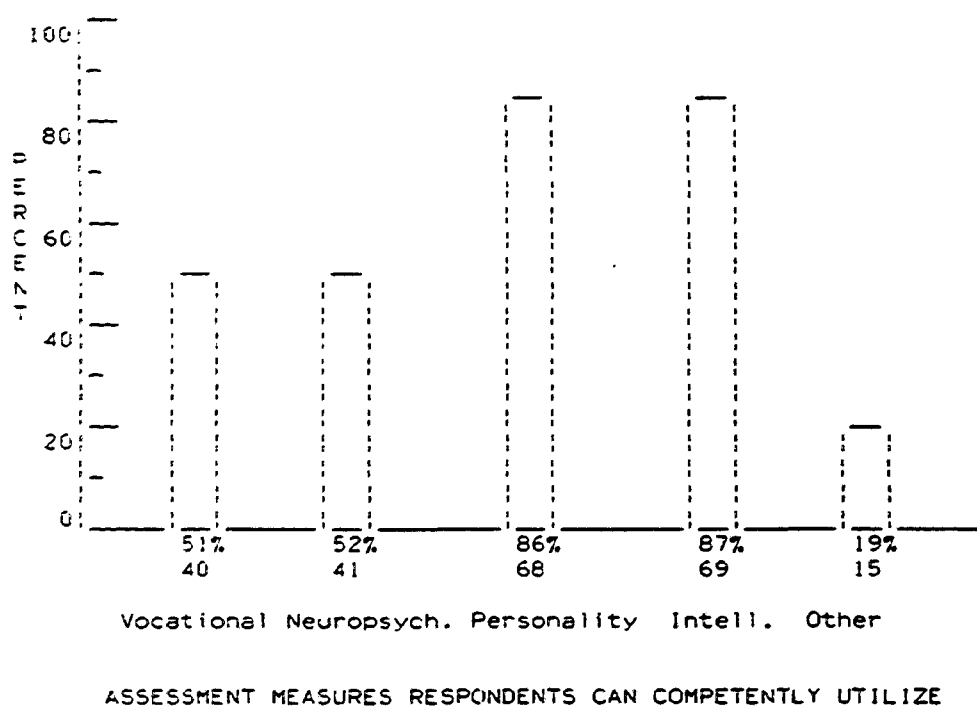


Figure 6. Percentage of random sample respondents that can competently utilize each assessment measure. (The respondents indicated multiple responses for a total of 233 responses. Numbers below percentages represent the total number of responses for each assessment measure category; $n = 79$.) Note. Graph bars are represented to the nearest 5%.



Figure 7. Distribution of random sample respondents by perceived level of difficulty adjusting to first work experience in rehabilitation. (Numbers below percentages represent the total number of responses for each level of difficulty category; $n = 79$.) Note. Graph bars are represented to the nearest 5%.

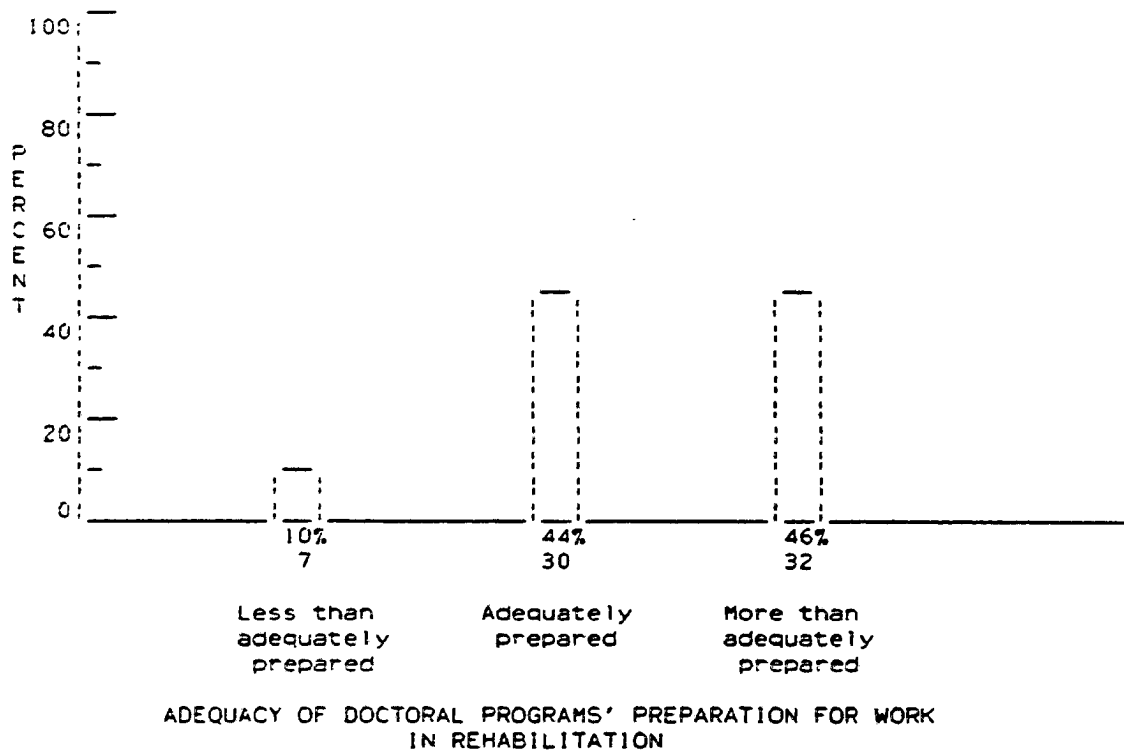


Figure 8. Distribution of random sample respondents by perceived adequacy of doctoral programs' preparation for work in rehabilitation. (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $n = 69$.) **Note.** Graph bars are represented to the nearest 5%.

Responses to perceived knowledge of the theory in rehabilitation psychology indicate 1% of respondents perceived their knowledge of theory as low, 47% average, and 52% high (see Figure 9). Correspondingly, 11% of respondents perceived their knowledge of research as low, 55% average, and 34% high (see Figure 9).

Responses to primary theoretical orientations indicate respondents are primarily cognitive-behavioral (46%) and eclectic (32%), followed by psychodynamic (9%), humanistic (5%), and other (8%) (see Figure 10). The respondents reported the perceived primary theoretical orientations taught by their doctoral programs were eclectic (37%), cognitive-behavioral (28%), psychodynamic (16%), humanistic (10%), and other (9%) (see Figure 10). Respondents perceived the primary theoretical orientations at work settings are cognitive-behavioral (44%) and eclectic (38%), followed by psychodynamic (6%), humanistic (4%), and other (8%) (see Figure 10).

Responses to primary goals for patients or clients indicate the respondents' primary goals are self-adjustment (51%), followed by independence (28%), employment (11%), and other (10%) (see Figure 11). The respondents indicated the perceived primary goals for patients or clients taught by their doctoral programs were self-adjustment (62%), employment (17%), independence (15%), and other (6%) (see Figure 11). The respondents perceived the primary goals for patients or clients at work settings are self-adjustment (37%), independence (32%), employment (15%), and other (16%) (see Figure 11).

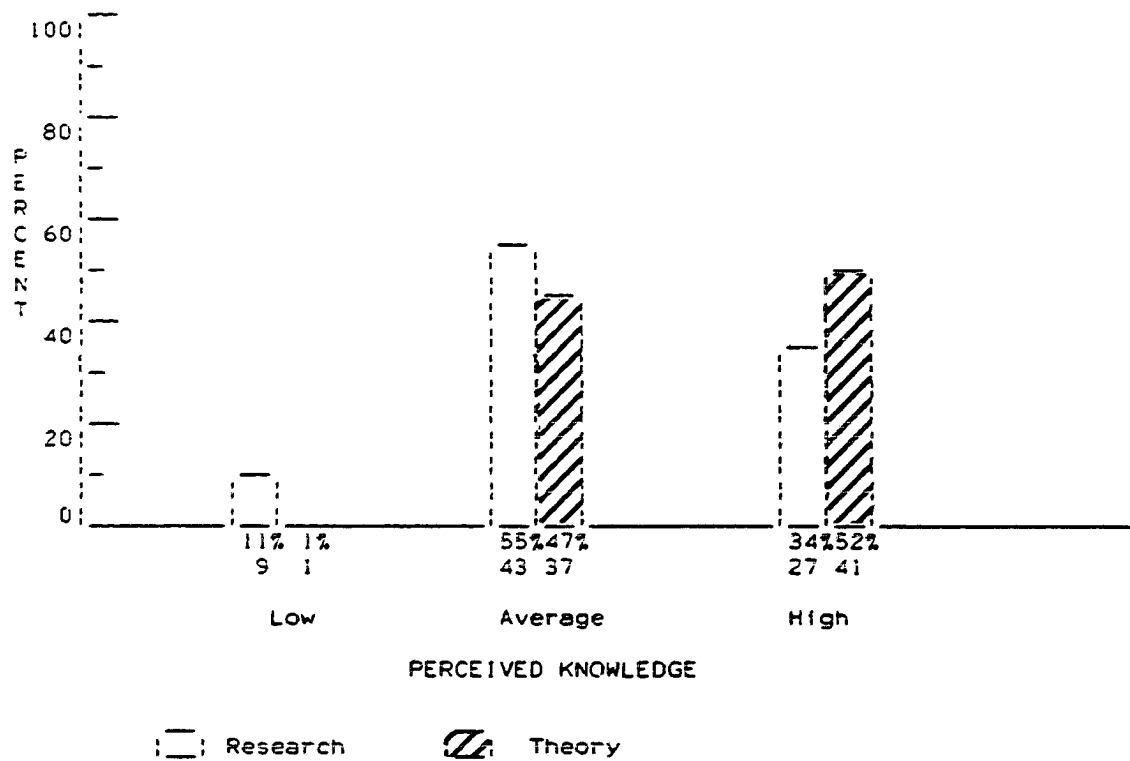


Figure 9. Distribution of random sample respondents by perceived knowledge of research and theory in rehabilitation psychology. (Numbers below percentages represent the total number of responses for each level of knowledge category; $n = 79$.) Note. Graph bars are represented to the nearest 5%.

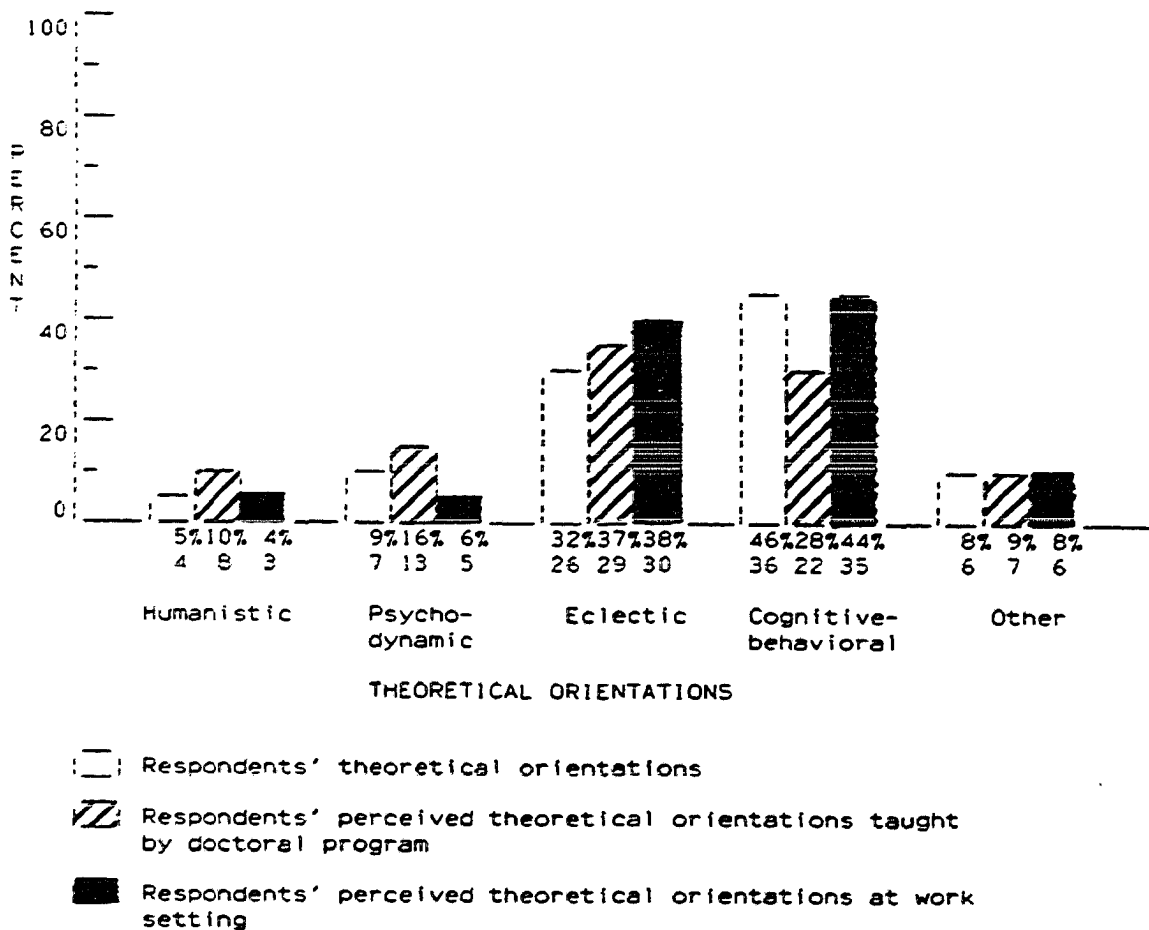


Figure 10. Distribution of random sample respondents by respondents' theoretical orientations, respondents' perceived theoretical orientations taught by doctoral program, and respondents' perceived theoretical orientations at work setting.

(Numbers below percentages represent the total number of responses for each theoretical orientation category; $n = 79$.) **Note.** Graph bars are represented to the nearest 5%.

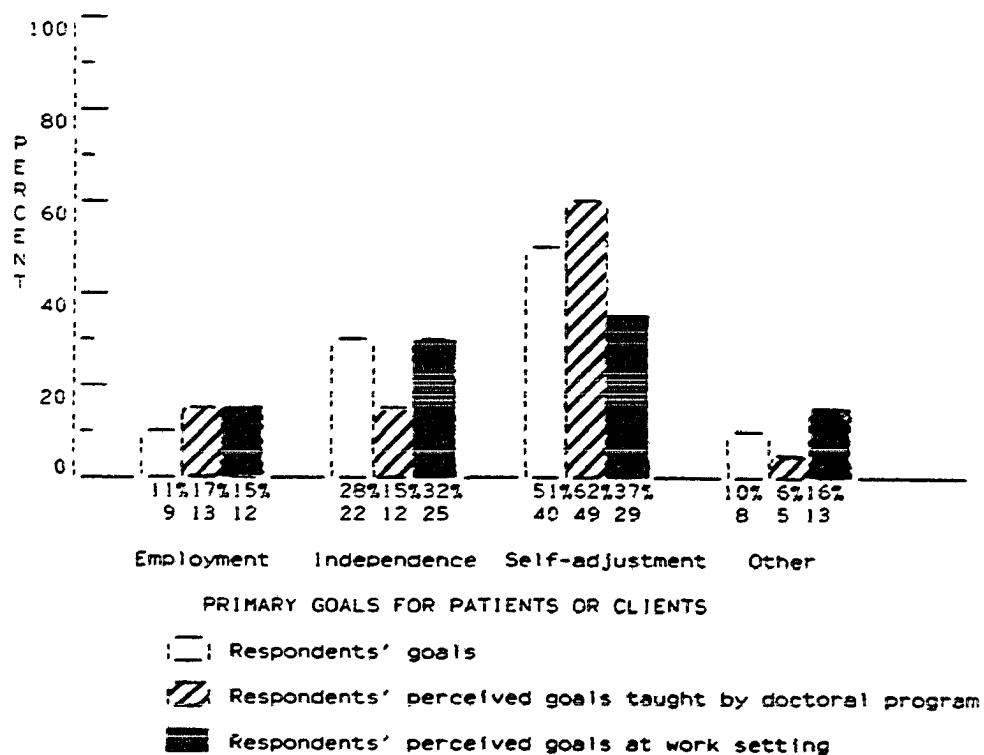


Figure 11. Distribution of random sample respondents by respondents' primary goals for patients or clients, respondents' perceived primary goals for patients or clients taught by doctoral program, and respondents' perceived primary goals for patients or clients at work setting. (Numbers below percentages represent the total number of responses for each primary goal category; $n = 79$.) **Note.** Graph bars are represented to the nearest 5%.

Respondents also reported their perceived practitioner competency level, attitudes toward disabled persons, and work satisfaction. Responses to the Rehabilitation Skills Inventory indicate the respondents perceived a high attainment of assessment and counseling skills and perceived a moderate attainment of case management and professional and community involvement skills. Results of the Measurement of Attitudes Toward Disabled Persons indicate a mean male score of 87 with a standard deviation of 16 and a mean female score of 88 with a standard deviation of 10, both of which are well above the normative data for non-disabled males (73) and nondisabled females (75). Results of the Work Satisfaction Scale indicate a mean intrinsic satisfaction score of 50 with a standard deviation of 8, a mean extrinsic satisfaction score of 21 with a standard deviation of 7, and a mean general satisfaction score of 78 with a standard deviation of 12, which are all slightly above the means of the normative data (47, 20, and 75, respectively).

Research Question Results

The subjects for the comparison of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs were the respondents from the random sample (80) and an additional 37 rehabilitation psychology trained respondents. There were no significant differences between rehabilitation psychology respondents that were randomly and non-randomly selected. A 64% return rate (133 surveys returned of the 207 questionnaires

mailed) was obtained, of which 88% (117) was used in the study (16 surveys were returned incomplete or indicated retirement).

Objective Professional Characteristics

Educational background. Research Question 1 asked: Do differences exist in the highest academic degree obtained among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $\chi^2(2, N = 109) = 2.80, p > .05$, was found in the highest academic degree obtained among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 1). Ninety-four percent of clinical, 91% of counseling, and 82% of rehabilitation psychology trained respondents indicated having obtained a Ph.D.

Table 1

A Cross-Tabulation of Respondents' Highest Academic Degree by Doctoral Program

Highest academic degree	Doctoral Program		
	Clinical	Counseling	Rehabilitation
Ph.D.	94% 29	91% 20	82% 46
Other	6% 2	9% 2	18% 10
Total	29% 31	20% 22	51% 56

Research Question 2 asked: Do differences exist in the settings of the pre-doctoral internship among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A significant difference $\chi^2(10, N = 109) = 23.9, p < .01$, was found in the settings of the pre-doctoral internship among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 12). Ten percent of clinical, 5% of counseling, and 12% of rehabilitation psychology trained respondents indicated a pre-doctoral internship in a mental health agency. Three percent of clinical, 18% of counseling, and 12% of rehabilitation psychology trained respondents indicated a pre-doctoral internship in a university counseling center. Thirty-six percent of clinical, 36% of counseling, and 16% of rehabilitation psychology trained respondents indicated a pre-doctoral internship in a veterans administration hospital. Forty-eight percent of clinical, 23% of counseling, and 29% of rehabilitation psychology trained respondents indicated a pre-doctoral internship in a hospital or medical center. Three percent of clinical, 5% of counseling, and 18% of rehabilitation psychology trained respondents indicated a pre-doctoral internship in other settings. Thirteen percent of both counseling and rehabilitation psychology trained respondents reported having no pre-doctoral internship; all clinical psychology trained respondents indicated a pre-doctoral internship.

Professional background. Research Question 3 stated: Do differences exist in the licensure status among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

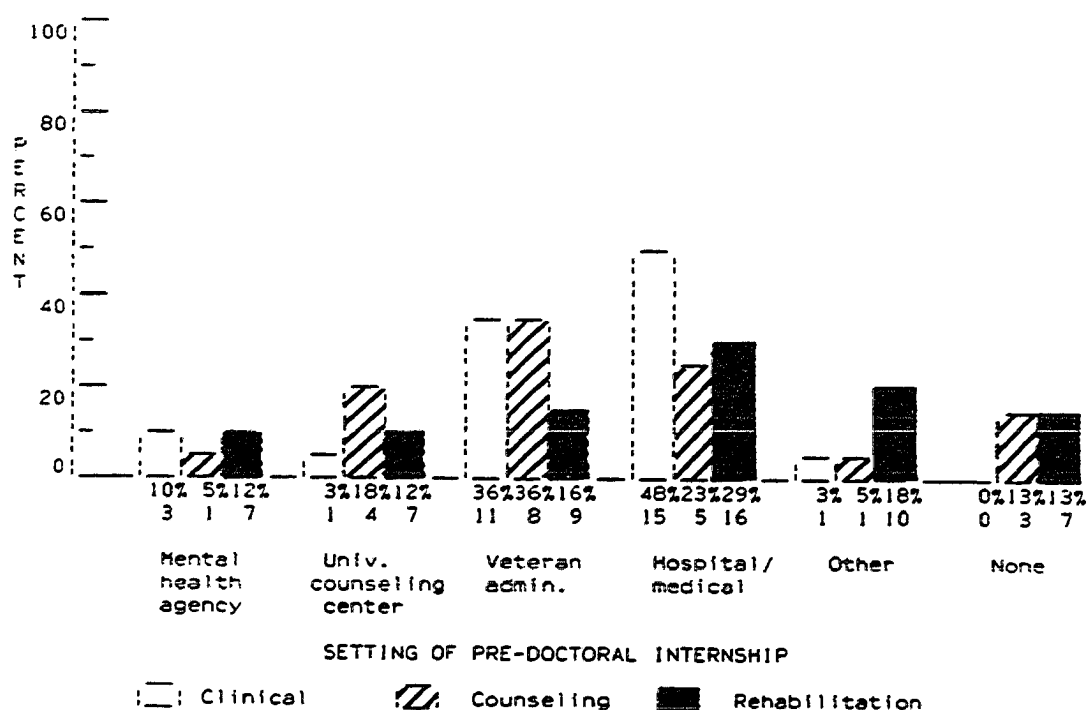


Figure 12. Distribution of respondents by setting of pre-doctoral internship and doctoral program.* (Numbers below percentages represent the total number of responses for each setting of pre-doctoral internship category; $N = 109$.) Note. Graph bars are represented to the nearest 5%.

* $p < .01$.

A significant difference, $\chi^2(2, N = 108) = 13.2, p < .01$, was found in the licensure status among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 13). Ninety-seven percent of clinical, 91% of counseling, and 69% of rehabilitation psychology trained respondents indicated they are licensed psychologists.

In answer to Research Question 4, do differences exist in the number of years of post-doctorate work experience among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?, a non-significant difference, $F(2, 106) = .66, p > .05$, was found in the number of years of post-doctorate work experience among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 2). The mean number of years of post-doctorate work experience for clinical psychology trained respondents is 12.7, with a standard deviation of 9.3; counseling psychology trained respondents is 15.0, with a standard deviation of 9.0; and rehabilitation psychology trained respondents is 13.1, with a standard deviation of 6.0.

Professional activities. Research Question 5 stated: Do differences exist in the primary work settings among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $\chi^2(8, N = 109) = 9.30, p > .05$, was found in the primary work settings among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 14). Seven percent of clinical, 18% of counseling, and 9% of rehabilitation psychology trained respondents indicated federal or state agency as their primary work setting. Twenty-nine percent

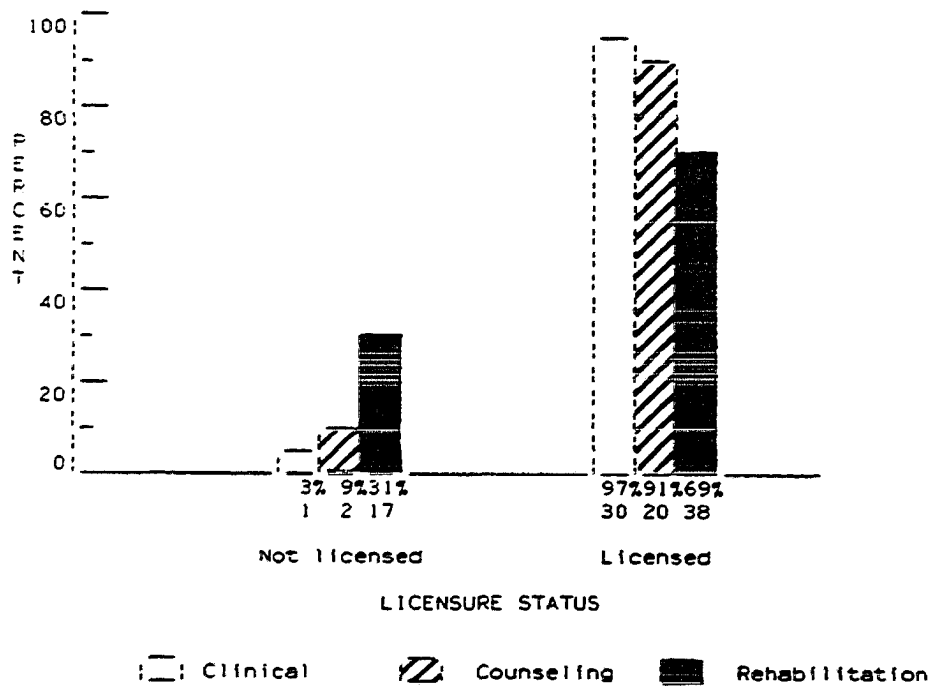


Figure 13. Distribution of respondents by licensure status and doctoral program.*
 (Numbers below percentages represent the number of responses for each licensure category; $N = 108$.) **Note.** Graph bars are represented to the nearest 5%.

* $p < .01$.

Table 2

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Number of Years of Post-Doctorate Work Experience by Doctoral Program

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	78.97	39.48	.66	.51*
Within groups	106	6302.60	59.45		
Total	108	6381.57			

Group	N	Mean	Standard deviation
Clinical	31	12.74	9.33
Counseling	22	15.04	9.05
Rehabilitation	56	13.07	5.97
Total	109	13.62	8.12

* $p > .05$.

of clinical, 18% of counseling, and 21% of rehabilitation psychology trained respondents indicated private practice as their primary work setting. Sixteen percent of clinical, 32% of counseling, and 29% of rehabilitation psychology trained respondents indicated college or university as their primary work setting. Forty-eight

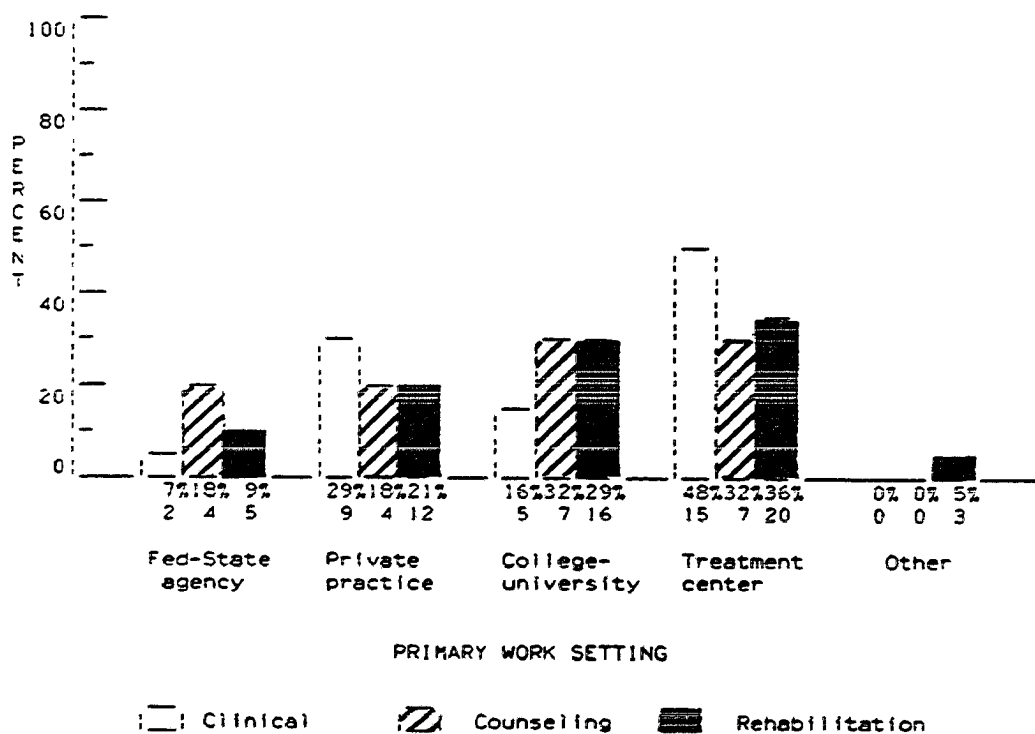


Figure 14. Distribution of respondents by primary work setting and doctoral program.* (Numbers below percentages represent the total number of responses for each primary work setting category; $N = 109$.) **Note.** Graph bars are represented to the nearest 5%.

* $p > .05$.

percent of clinical, 32% of counseling, and 36% of rehabilitation psychology trained respondents indicated treatment center as their primary work setting. Only 5% of rehabilitation psychology trained respondents indicated their primary work setting as other.

A significant difference, $\chi^2(4, N = 109) = 13.2, p < .05$, was found in the primary work settings between respondents with seven years or less of work experience and respondents with eight years or more work experience (see Figure 15). The less experienced respondents indicated their primary work settings as treatment centers (62%), followed by private practice (27%), colleges or universities (7%), and federal or state agencies (4%). The more experienced respondents indicated their primary work settings as treatment centers (31%) and colleges or universities (31%), followed by private practice (22%), federal or state agencies (12%), and other (4%).

Research Question 6: Do differences exist in the major functions performed among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Non-significant differences were found in the major functions of therapy, $\chi^2(2, N = 110) = 4.51, p > .05$; assessment, $\chi^2(2, N = 110) = 1.30, p > .05$; professional consultation, $\chi^2(2, N = 110) = 2.45, p > .05$; training or education, $\chi^2(2, N = 110) = 2.95, p > .05$; research, $\chi^2(2, N = 110) = 4.27, p > .05$; and other, $\chi^2(2, N = 110) = 3.63, p > .05$, among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 16).

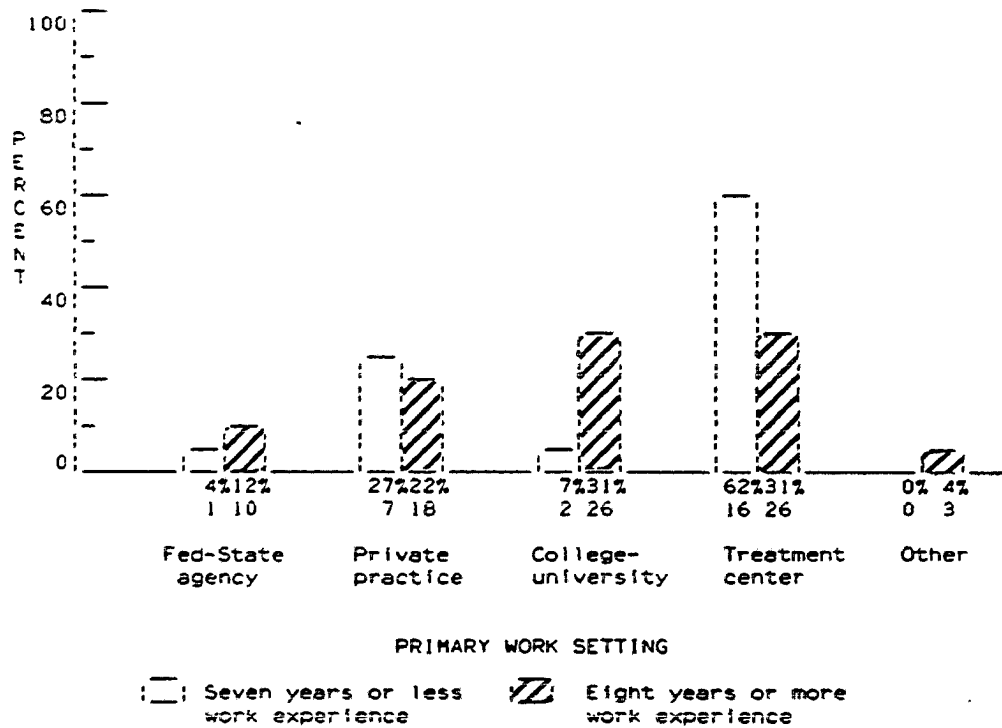


Figure 15. Distribution of respondents by primary work setting and number of years of post-doctorate work experience.* (Numbers below percentages represent the total number of responses for each primary work setting category; $N = 109$). Note. Graph bars are represented to the nearest 5%.

* $p < .05$.

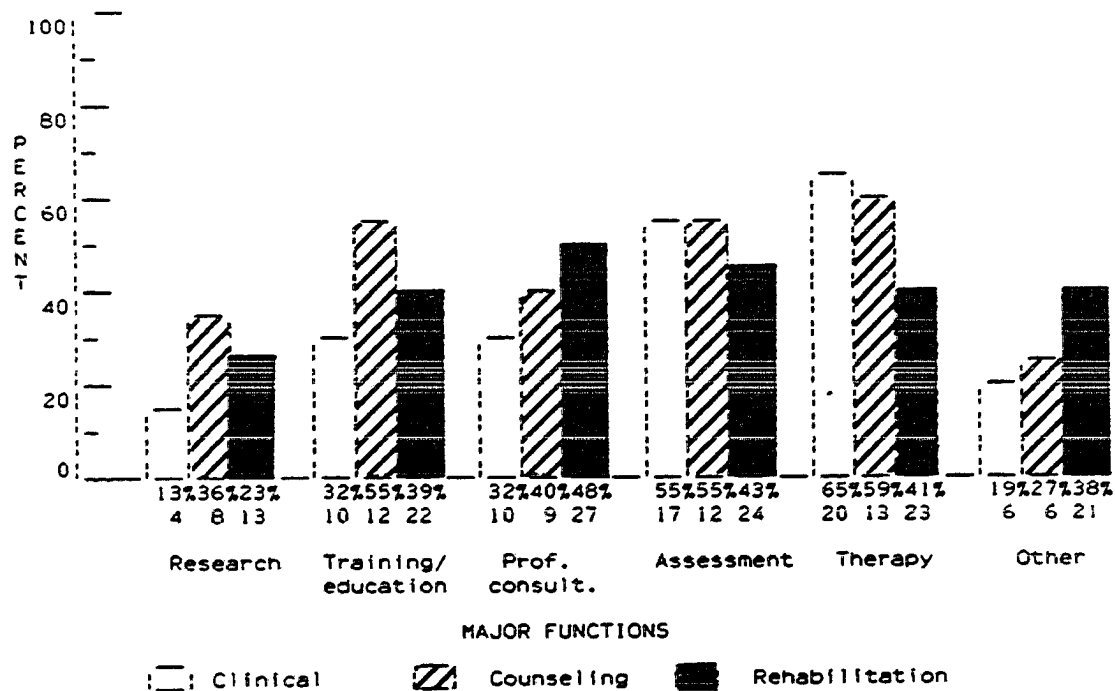


Figure 16. Percentage of respondents performing each major function by doctoral program.* (The respondents indicated multiple responses for a total of 257 responses. Numbers below percentages represent the total number of responses for each major function category; $N = 109$). Note. Graph bars are represented to the nearest 5%.

* $p > .05$.

Thirteen percent of clinical, 36% of counseling, and 23% of rehabilitation psychology trained respondents indicated performing research. Thirty-two percent of clinical, 55% of counseling, and 39% of rehabilitation psychology trained respondents indicated performing training or education. Thirty-two percent of clinical, 40% of counseling, and 48% of rehabilitation psychology trained respondents indicated performing professional consultation. Fifty-five percent of clinical, 55% of counseling, and 43% of rehabilitation psychology trained respondents indicated performing assessment. Sixty-five percent of clinical, 59% of counseling, and 41% of rehabilitation psychology trained respondents indicated performing therapy. Nineteen percent of clinical, 27% of counseling, and 38% of rehabilitation psychology trained respondents indicated other major functions.

A significant difference, $\chi^2(1, N = 109) = 3.88, p < .05$, was found in the major function of assessment between respondents with seven years or less of work experience and respondents with eight years or more work experience (see Figure 17). Sixty-five percent of the less experienced respondents indicated performing assessment, whereas 43% of the more experienced respondents indicated performing assessment.

Research Question 7: Do differences exist in the ability to competently utilize assessment measures among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Non-significant differences were found in the ability to utilize assessment measures of intelligence, $\chi^2(2, N = 110) = 2.33, p > .05$, and personality, $\chi^2(2, N = 110) = 5.97, p > .05$; however, significant differences were found in the ability to

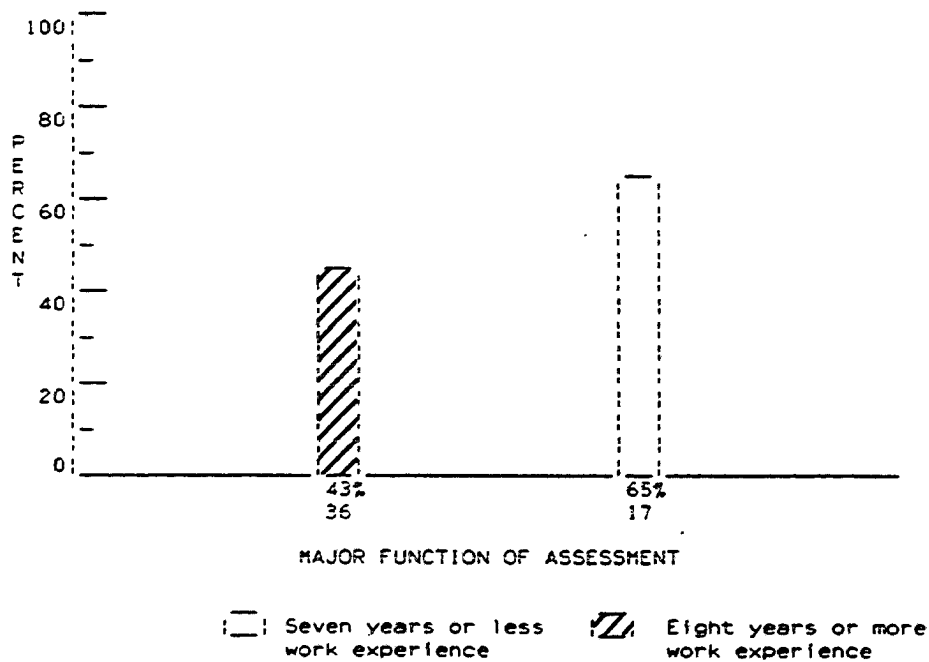


Figure 17. Percentage of respondents performing the major function of assessment by number of years of post-doctorate work experience.* (Numbers below percentages represent the total number of responses for each assessment category; $N = 109$). **Note.** Graph bars are represented to the nearest 5%.

* $p < .05$.

utilize assessment measures of vocation, $\chi^2(2, N = 110) = 32.6, p < .001$, and neuropsychology, $\chi^2(2, N = 110) = 10.4, p < .01$, among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 18). Seventy-two percent of clinical, 36% of counseling, and 39% of rehabilitation psychology trained respondents indicated competence in utilizing neuropsychological tests. Twenty-two percent of clinical, 82% of counseling, and 79% of rehabilitation psychology trained respondents indicated competence in utilizing vocational tests. Eighty-eight percent of clinical, 91% of counseling, and 79% of rehabilitation psychology trained respondents indicated competence in utilizing intelligence tests. Ninety-one percent of clinical, 96% of counseling, and 77% of rehabilitation psychology trained respondents indicated competence in utilizing personality tests.

A significant difference, $\chi^2(1, N = 109) = 4.21, p < .05$, was found in the ability to competently utilize vocational assessment measures between respondents with seven years or less work experience and respondents with eight years or more work experience (see Figure 19). Less experienced respondents indicated 58% can competently utilize neuropsychological tests, 46% can competently utilize vocational tests, 77% can competently utilize intelligence tests, and 85% can competently utilize personality tests. More experienced respondents indicated 64% can competently utilize neuropsychological tests, 74% can competently utilize vocational tests, 94% can competently utilize intelligence tests, and 92% can competently utilize personality tests.

Subjective Professional Characteristics

Evaluation of academic preparation. Research Question 8: Do differences

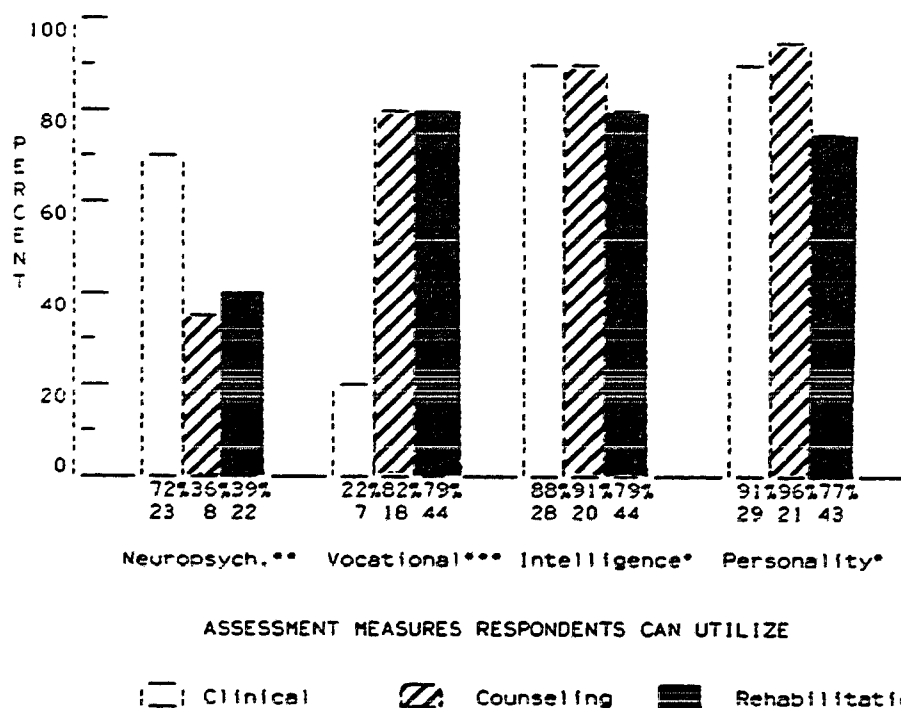


Figure 18. Percentage of respondents that can competently utilize each assessment measure by doctoral program. (The respondents indicated multiple responses for a total of 307 responses. Numbers below percentages represent the total number of responses for each assessment measure category.) ($N = 110$.) **Note.** Graph bars are represented to the nearest 5%.

* $p > .05$. ** $p < .01$. *** $p < .001$.

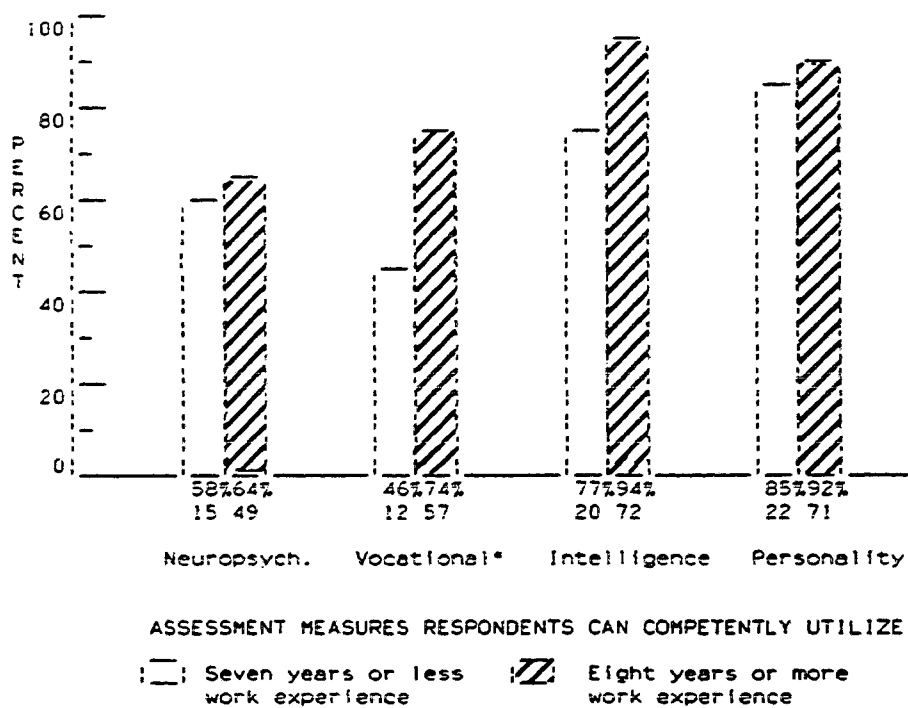


Figure 19. Percentage of respondents that can competently utilize each assessment measure by number of years of post-doctorate work experience.* (The respondents indicated multiple responses for a total of 318 responses. Numbers below percentages represent the total number of responses for each assessment measure category; $N = 103$). Note. Graph bars are represented to the nearest 5%.

* $p < .05$.

exist in the perceived difficulty adjusting to the first work experience in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A significant difference, $\chi^2(4, N = 109) = 10.9, p < .05$, was found in the perceived difficulty adjusting to the first work experience in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 20). Twenty percent of clinical, 14% of counseling, and 5% of rehabilitation psychology trained respondents perceived above average difficulty adjusting to their first work experience in rehabilitation. Forty-eight percent of clinical, 27% of counseling, and 29% of rehabilitation psychology trained respondents perceived average difficulty adjusting to their first work experience in rehabilitation. Thirty-two percent of clinical, 59% of counseling, and 66% of rehabilitation psychology trained respondents perceived below average difficulty adjusting to their first work experience in rehabilitation.

A significant difference, $\chi^2(2, N = 109) = 7.37, p < .05$, was found in the perceived difficulty adjusting to the first work experience in rehabilitation between respondents with seven years or less work experience and respondents with eight years or more work experience (see Figure 21). The less experienced respondents indicated 23% above average difficulty, 42% average difficulty, and 35% below average difficulty adjusting to their first work experience in rehabilitation. The more experienced respondents indicated 7% above average difficulty, 31% average difficulty, and 62% below average difficulty adjusting to their first work experience in rehabilitation.

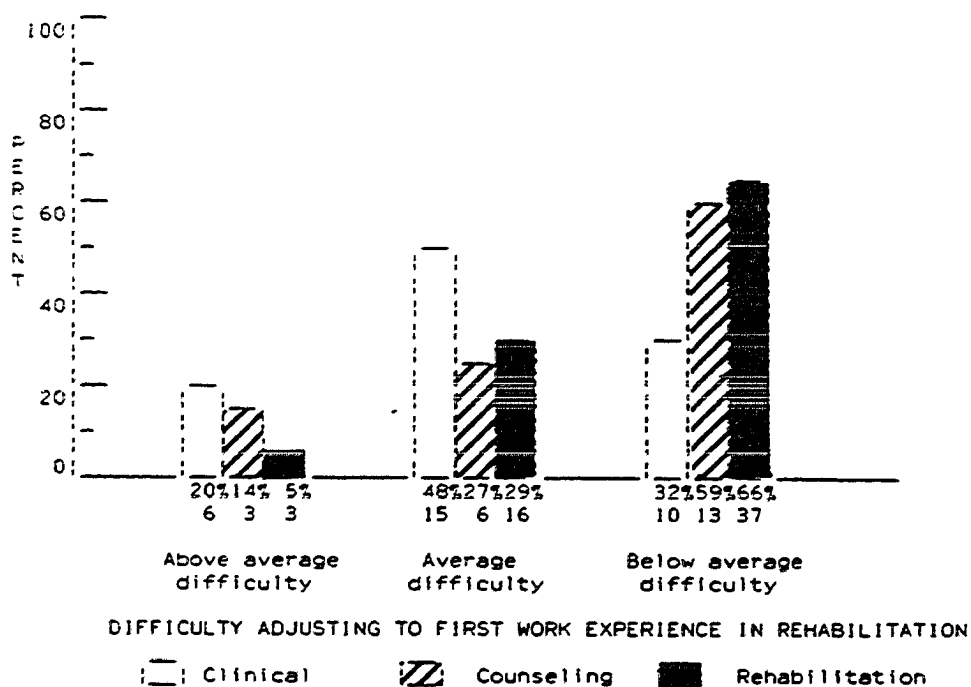


Figure 20. Distribution of respondents by perceived level of difficulty adjusting to first work experience in rehabilitation and doctoral program.* (Numbers below percentages represent the total number of responses for each level of difficulty category; $N = 109$.) **Note.** Graph bars are represented to the nearest 5%.

* $p < .05$.

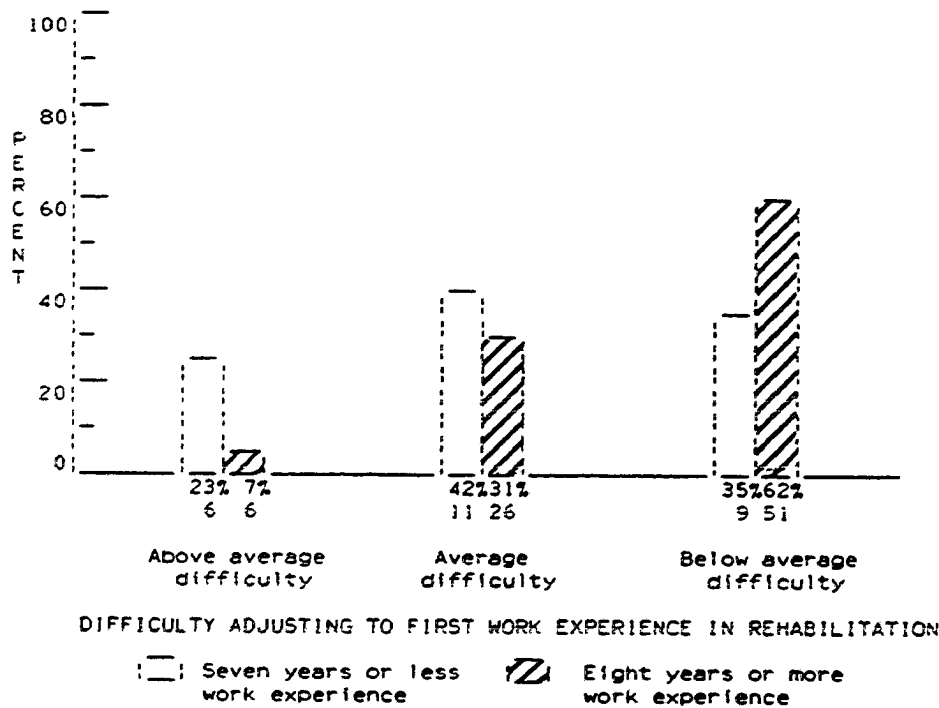


Figure 21. Distribution of respondents by perceived level of difficulty adjusting to first work experience in rehabilitation and number of years of post-doctorate work experience.* (Numbers below percentages represent the total number of responses for each level of difficulty category; $N = 109$). **Note.** Graph bars are represented to the nearest 5%.

* $p < .05$.

Research Question 9: Do differences exist in the perceived adequacy of doctoral programs' preparation for work in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A significant difference, $\chi^2(2, N = 109) = 16.0, p < .01$, was found in the perceived adequacy of doctoral programs' preparation for work in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 22). Twenty-six percent of clinical, 23% of counseling, and 11% of rehabilitation psychology trained respondents perceived their doctoral program prepared them less than adequately for work in rehabilitation. Forty-eight percent of clinical, 13% of counseling, and 25% of rehabilitation psychology trained respondents perceived their doctoral program prepared them adequately for work in rehabilitation. Twenty-six percent of clinical, 64% of counseling, and 64% of rehabilitation psychology trained respondents perceived their doctoral program prepared them more than adequately for work in rehabilitation.

Perceived knowledge of rehabilitation psychology. Research Question 10 states: Do differences exist in the perceived knowledge of theory in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A significant difference, $\chi^2(2, N = 107) = 7.27, p < .05$, was found in the perceived knowledge of theory in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 23). Fifty-three percent of clinical, 46% of counseling, and 25% of rehabilitation psychology trained respondents indicated average knowledge of theory

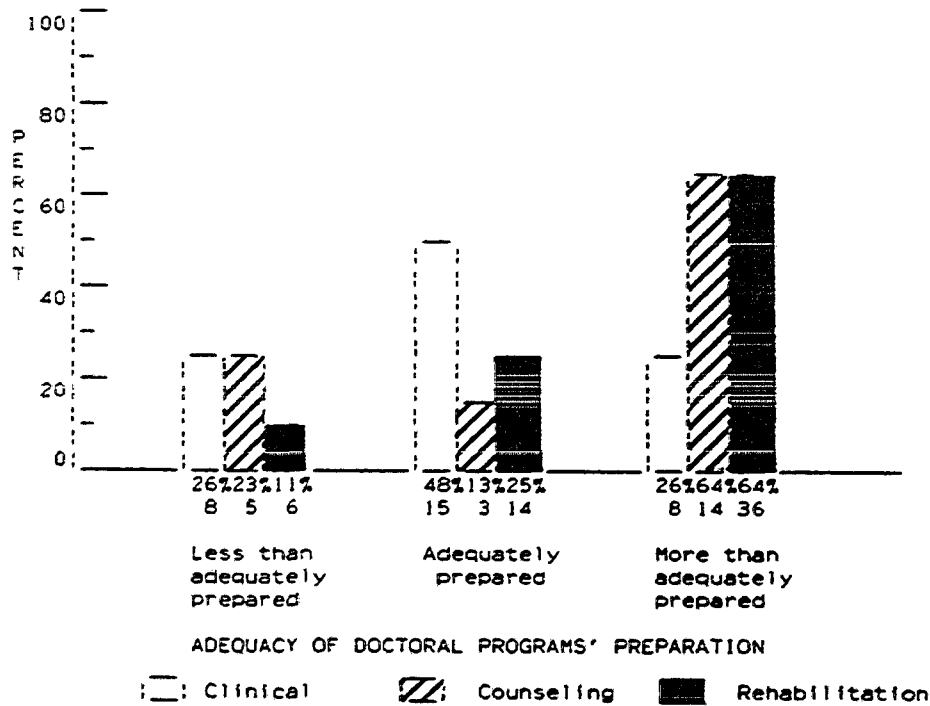


Figure 22. Distribution of respondents by perceived adequacy of doctoral programs' preparation for work in rehabilitation and doctoral program.* (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 109$.) Note. Graph bars are represented to the nearest 5%.

* $p < .01$.

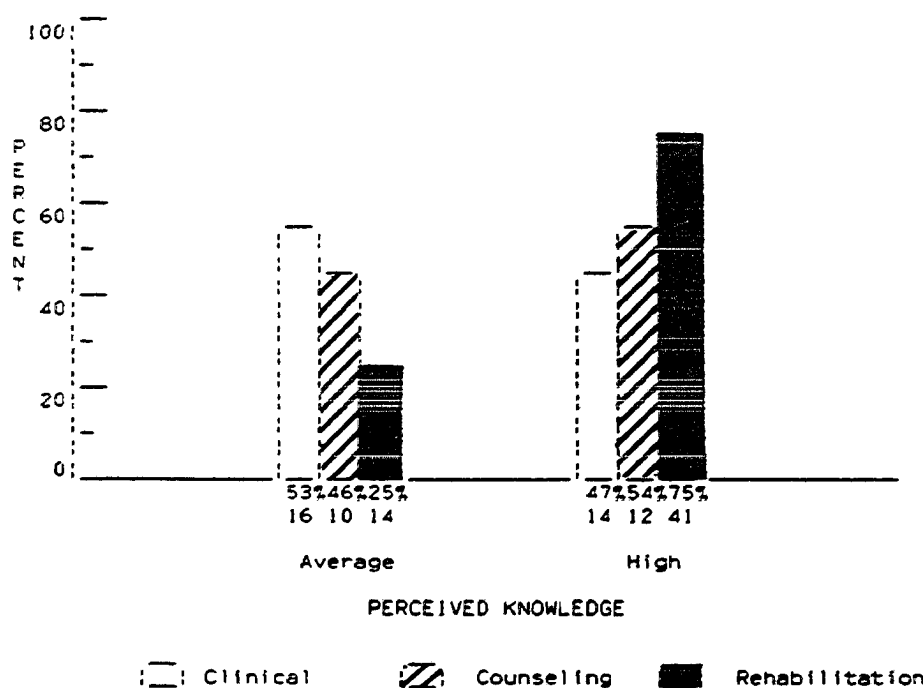


Figure 23. Distribution of respondents by perceived knowledge of theory in rehabilitation psychology and doctoral program.* (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 107$.)

Note. Graph bars are represented to the nearest 5%.

* $p < .05$.

in rehabilitation psychology. Forty-seven percent of clinical, 54% of counseling, and 75% of rehabilitation psychology trained respondents indicated high knowledge of theory in rehabilitation psychology.

Research Question 11 asked: Do differences exist in the perceived knowledge of research in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $\chi^2(2, N = 102) = .28, p > .05$, was found in the perceived knowledge of research in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 3). Sixty-three percent of clinical, 62% of counseling, and 57% of rehabilitation psychology trained respondents indicated average knowledge of research in rehabilitation psychology. Thirty-seven percent of clinical, 38% of counseling, and 43% of rehabilitation psychology trained respondents indicated high knowledge of research in rehabilitation psychology.

Primary theoretical orientation. Research Question 12 states: Do differences exist in the primary theoretical orientations among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Non-significant differences, $\chi^2(6, N = 106) = 1.75, p > .05$, were found in the primary theoretical orientations among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 4). Three percent of clinical, 10% of counseling, and 9% of rehabilitation psychology trained respondents indicated a humanistic theoretical orientation. Ten percent of clinical, 10% of counseling, and 9% of rehabilitation psychology trained respondents indicated a

Table 3

A Cross-Tabulation of Respondents' Perceived Knowledge of Research in Rehabilitation by Doctoral Program

Perceived knowledge	Doctoral Program		
	Clinical	Counseling	Rehabilitation
High	37% 10	38% 8	43% 23
Average	63% 17	62% 13	57% 31
Total	26% 27	21% 21	53% 54

Note. Numbers below percentages represent the number of responses; $N = 102$.

* $p > .05$.

psychodynamic theoretical orientation. Thirty percent of clinical, 35% of counseling, and 34% of rehabilitating psychology trained respondents indicated an eclectic theoretical orientation. Fifty-seven percent of clinical, 45% of counseling, and 48% of rehabilitation psychology trained respondents indicated a cognitive-behavioral theoretical orientation.

Research Question 13: Do differences exist in the primary theoretical orientations taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Table 4

A Cross-Tabulation of Respondents' Primary Theoretical Orientations by Doctoral Program

Theoretical orientations	Doctoral Program		
	Clinical	Counseling	Rehabilitation
Psychodynamic	10% 3	10% 2	9% 5
Humanistic	3% 1	10% 2	9% 5
Cognitive-Behavior	57% 17	45% 9	48% 26
Eclectic	30% 9	35% 7	34% 18
Total	29% 30	19% 20	52% 54

Note. Numbers below percentages represent the number of responses; $N = 104$.

* $p > .05$.

Significant differences, $\chi^2(6, N = 106) = 19.19, p < .01$, were found in the primary theoretical orientations taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 24). Twenty-nine percent of clinical, 10% of counseling, and 4% of rehabilitation psychology trained respondents indicated the primary

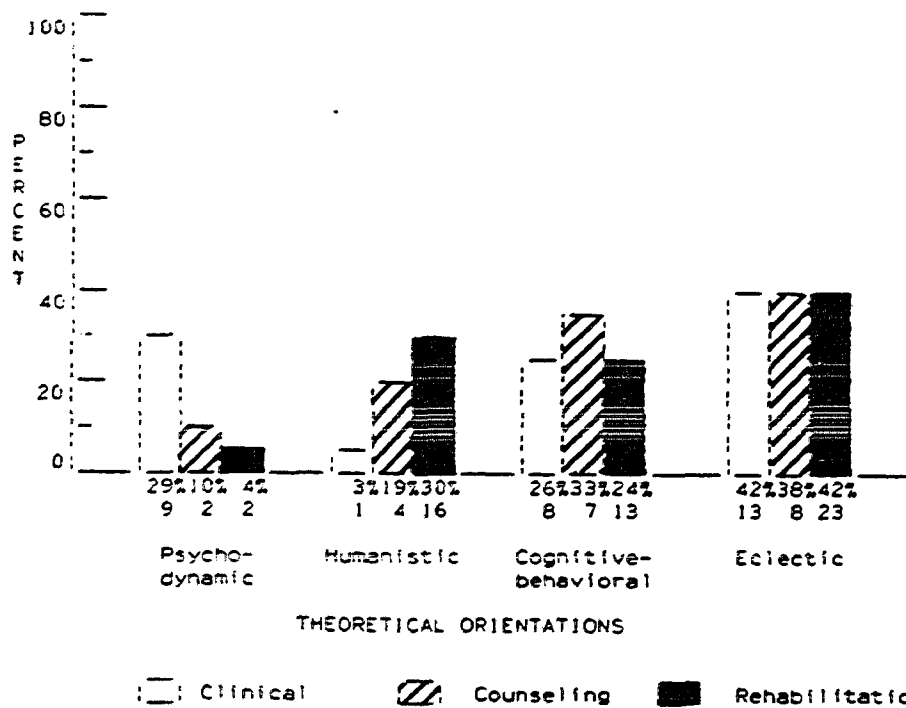


Figure 24. Distribution of respondents by perceived theoretical orientations taught by doctoral program.* (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 106$.) Note. Graph bars are represented to the nearest 5%.

* $p < .01$.

theoretical orientation taught by their doctoral program was psychodynamic. Three percent of clinical, 19% of counseling, and 30% of rehabilitation psychology trained respondents indicated the primary theoretical orientation taught by their doctoral program was humanistic. Twenty-six percent of clinical, 33% of counseling, and 24% of rehabilitation psychology trained respondents indicated the primary theoretical orientation taught by their doctoral program was cognitive-behavioral. Forty-two percent of clinical, 38% of counseling, and 42% of rehabilitation psychology trained respondents indicated the primary theoretical orientation taught by their doctoral program was eclectic.

Research Question 14: Do differences exist in the primary theoretical orientations at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Significant differences, $\chi^2(8, N = 109) = 16.14, p < .05$, were found in the primary theoretical orientations at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 25). Nine percent of counseling and 4% of rehabilitation psychology trained respondents indicated a humanistic theoretical orientation at their primary work setting. Ten percent of clinical, 4% of counseling, and 4% of rehabilitation psychology trained respondents indicated a psychodynamic theoretical orientation at their primary work setting. Twenty-nine percent of clinical, 46% of counseling, and 46% of rehabilitating psychology trained respondents indicated an eclectic theoretical orientation at their primary work setting. Sixty-one percent of clinical, 27% of counseling, and 37% of rehabilitation psychology trained respondents indicated a

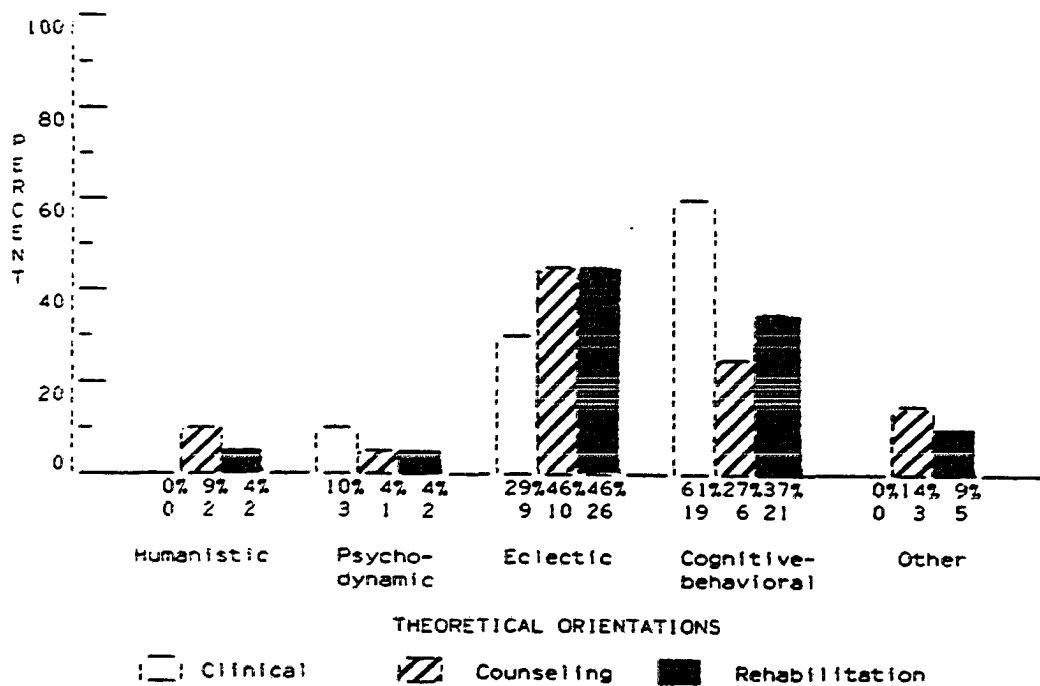


Figure 25. Distribution of respondents by perceived theoretical orientations at primary work setting and doctoral program.* (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 109$.) **Note.** Graph bars are represented to the nearest 5%.

* $p < .05$.

cognitive-behavioral theoretical orientation at their primary work setting. Fourteen percent of counseling and 9% of rehabilitation psychology trained respondents indicated the primary theoretical orientation of their primary work setting is other.

Primary goals for patients or clients. Research Question 15: Do differences exist in the primary goals for patients or clients among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Non-significant differences, $\chi^2(4, N = 97) = 4.30, p > .05$, were found in the primary goals for patients or clients among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 5). Ten percent of clinical, 12% of counseling, and 24% of rehabilitation psychology trained respondents indicated employment as their primary goal for patients or clients. Twenty-three percent of clinical, 35% of counseling, and 28% of rehabilitation psychology trained respondents indicated independence as their primary goal for patients or clients.

Sixty-seven percent of clinical, 53% of counseling, and 48% of rehabilitation psychology trained respondents indicated self-adjustment as their primary goal for most patients or clients.

Research Question 16: Do differences exist in the primary goals for patients or clients taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Significant differences, $\chi^2(4, N = 105) = 29.31, p < .001$, were found in the primary goals for patients or clients taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral

Table 5

A Cross-Tabulation of Respondents' Primary Goals for Patients or Clients by Doctoral Program

Primary goals	Doctoral Program		
	Clinical	Counseling	Rehabilitation
Employment	10% 3	12% 2	24% 12
Independence	23% 7	35% 6	28% 14
Self-adjustment	67% 20	53% 9	48% 24
Total	31% 30	17% 17	52% 50

Note. Numbers below percentages represent the number of responses; $N = 97$.

* $p > .05$.

programs (see Figure 26). Ten percent of clinical, 20% of counseling, and 26% of rehabilitation psychology trained respondents indicated independence was the primary goal for patients or clients taught by their doctoral program. Three percent of clinical, 20% of counseling, and 43% of rehabilitation psychology trained respondents indicated employment was the primary goal for patients or clients taught by their doctoral program. Eighty-seven percent of clinical, 60% of counseling, and

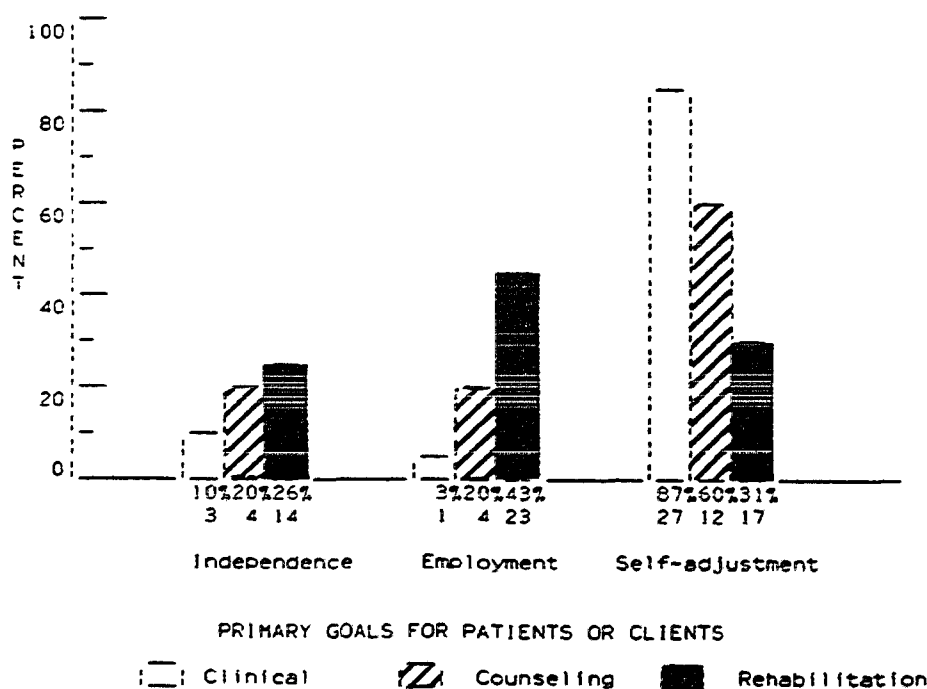


Figure 26. Distribution of respondents by perceived primary goals for patients or clients taught by doctoral program.* (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 105$.)

Note. Graph bars are represented to the nearest 5%.

* $p < .001$.

31% of rehabilitation psychology trained respondents indicated self-adjustment was the primary goal for patients or clients taught by their doctoral program.

Research Question 17: Do differences exist in primary goals for patients or clients at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Significant differences, $\chi^2(4, N = 92) = 10.02, p < .05$, were found in the primary goals for patients or clients at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 27). Eight percent of clinical, 31% of counseling, and 24% of rehabilitation psychology trained respondents indicated independence is the primary goal for patients or clients at their work setting. Forty-two percent of clinical, 56% of counseling, and 34% of rehabilitation psychology trained respondents indicated self-adjustment is the primary goal for patients or clients at their work setting.

Significant differences, $\chi^2(3, N = 109) = 12.40, p < .011$, were found in the primary goals for patients or clients at work settings as perceived between respondents with seven years or less work experience and respondents with eight years or more work experience (see Figure 28). The less experienced respondents indicated the primary goals for patients or clients at their work settings are 8% employment, 23% self-adjustment, 61% independence, and 8% other. The more experienced respondents indicated the primary goals for patients or clients at their work settings are 21% employment, 37% self-adjustment, 24% independence, and 18% other.

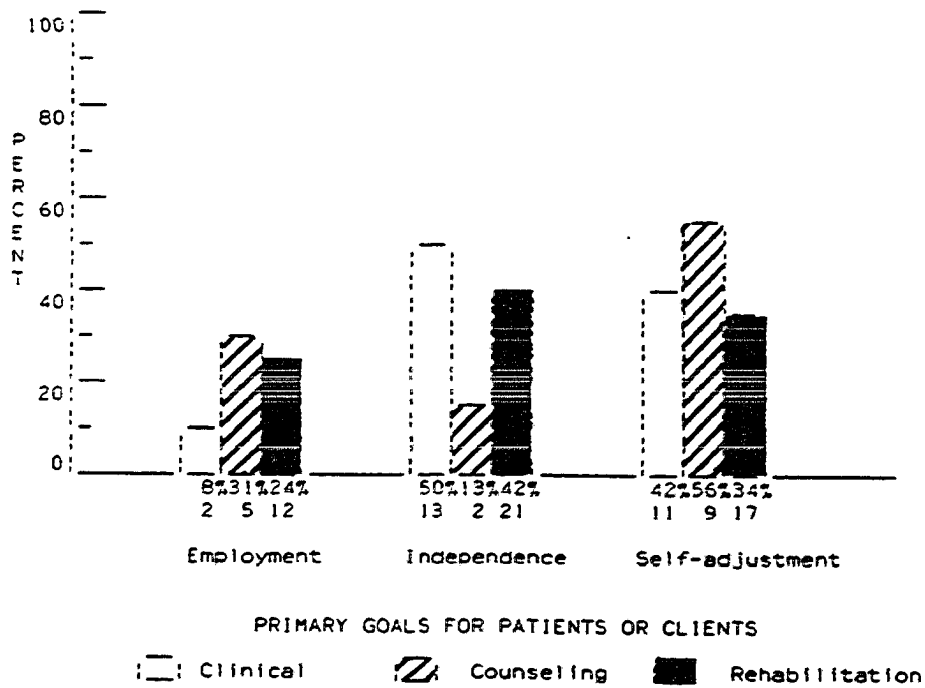


Figure 27. Distribution of respondents by perceived primary goals for patients or clients at work settings and doctoral program.* (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 92$.) **Note.** Graph bars are represented to the nearest 5%.

* $p < .05$.

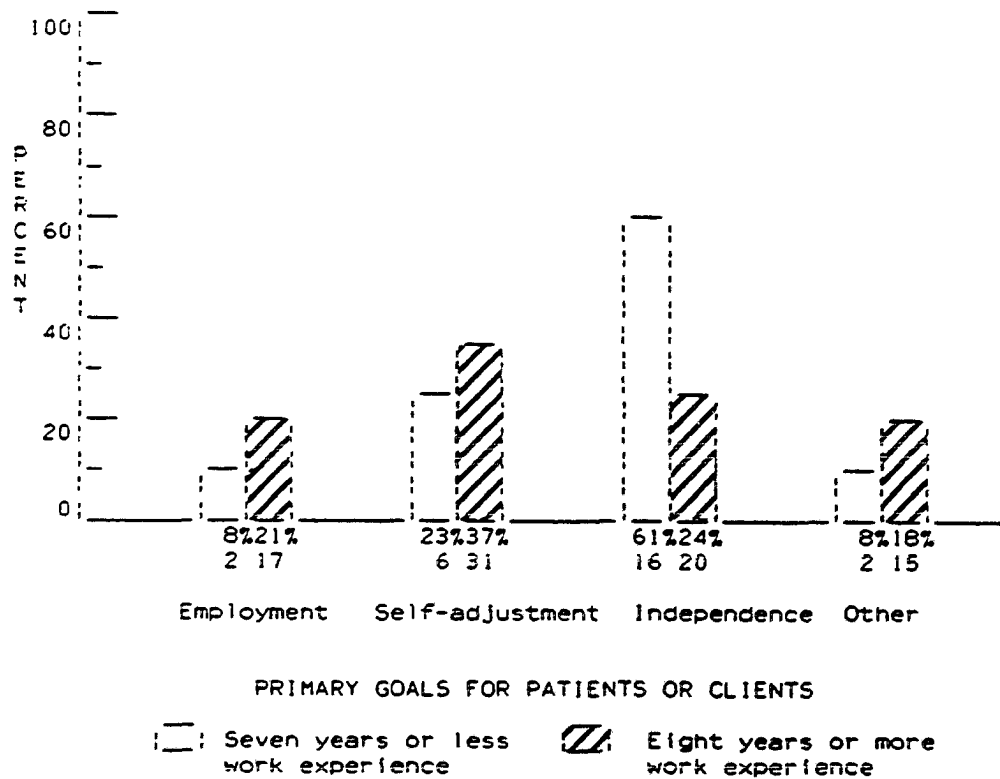


Figure 28. Distribution of respondents by perceived primary goals for patients or clients at work setting and number of years of post-doctorate work experience.*

(Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 109$.) **Note.** Graph bars are represented to the nearest 5%.

* $p < .001$.

Perceived practitioner competencies. Research Question 18: Do differences exist in perceived assessment skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 103) = .42, p < .05$, was found in perceived assessment skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 6). The mean score of clinical

Table 6

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Perceived Assessment Skills by Doctoral Program: Rehabilitation Skills Inventory (RSI)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	24.91	12.45	.42	.65*
Within groups	103	3043.57	29.54		
Total	105	3068.48			

Group	N	Mean	Standard deviation
Clinical	31	2.98	.60
Counseling	20	3.04	.40
Rehabilitation	55	3.09	.56
Total	106	3.04	.52

* $p > .05$.

psychology trained respondents is 3.0 with a standard deviation of .60. The mean score of counseling psychology trained respondents is 3.0 with a standard deviation of .40. The mean score of rehabilitation psychology trained respondents is 3.1 with a standard deviation of .56.

Research Question 19: Do differences exist in perceived counseling skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 103) = 2.23, p > .05$, was found in perceived counseling skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 7). The mean score of clinical psychology trained respondents is 2.8 with a standard deviation of .74. The mean score of counseling psychology trained respondents is 3.1 with a standard deviation of .30. The mean score of rehabilitation psychology trained respondents is 3.1 with a standard deviation of .51.

Research Question 20: Do differences exist in perceived case management skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 103) = 2.95, p > .05$, was found in perceived case management skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 8). The mean score of clinical psychology trained respondents is 2.5 with a standard deviation of .69. The mean score of counseling psychology trained respondents is 2.8 with a standard

Table 7

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Perceived Counseling Skills by Doctoral Program: Rehabilitation Skills Inventory (RSI)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	139.98	69.99	2.23	.11*
Within groups	103	3227.86	31.33		
Total	105	3367.84			

Group	N	Mean	Standard deviation
Clinical	31	2.83	.74
Counseling	20	3.06	.30
Rehabilitation	55	3.09	.51
Total	106	2.99	.52

* $p > .05$.

deviation of .56. The mean score of rehabilitation psychology trained respondents is 2.9 with a standard deviation of .66.

Research Question 21: Do differences exist in perceived professional and community involvement skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

Table 8

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Perceived Case Management Skills by Doctoral Program: Rehabilitation Skills Inventory (RSI)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	251.43	125.71	2.95	.06*
Within groups	103	4381.02	42.53		
Total	105	4632.45			

Group	<u>N</u>	Mean	Standard deviation
Clinical	31	2.52	.69
Counseling	20	2.78	.56
Rehabilitation	55	2.87	.66
Total	106	2.72	.64

* $p > .05$.

A non-significant difference, $F(2, 103) = 1.20$, $p > .05$, was found in perceived professional and community involvement skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 9). The mean score of clinical psychology trained respondents is 2.4 with a standard deviation of 1.1. The mean score of counseling psychology trained respondents is

Table 9

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Perceived Professional and Community Involvement Skills by Doctoral Program: Rehabilitation Skills Inventory (RSI)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	189.60	94.80	1.20	.30*
Within groups	103	8118.65	78.82		
Total	105	8308.25			

Group	N	Mean	Standard deviation
Clinical	31	2.36	1.07
Counseling	20	2.60	.78
Rehabilitation	55	2.67	.81
Total	106	2.54	.89

* $p > .05$.

2.6 with a standard deviation of .78. The mean score of rehabilitation psychology trained respondents is 2.7 with a standard deviation of .81.

Work satisfaction. Research Question 22: Do differences exist in intrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 105) = .38, p > .05$, was found in intrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 10). The mean score of clinical psychology trained respondents is 49.2 with a standard deviation of 5.8. The mean score of counseling psychology trained respondents is 49.0 with a standard deviation of 9.4. The mean score of rehabilitation psychology trained respondents is 50.4 with a standard deviation of 8.3.

Research Question 23: Do differences exist in extrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 105) = 1.66, p > .05$, was found in extrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Table 11). The mean score of clinical psychology trained respondents is 19.1 with a standard deviation of 3.6. The mean score of counseling psychology trained respondents is 22.2 with a standard deviation of 8.6. The mean score of rehabilitation psychology trained respondents is 21.2 with a standard deviation of 6.9.

Research Question 24: Do difference exist in general work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 105) = .85, p > .05$, was found in general work satisfaction among respondents trained in clinical, counseling, and

Table 10

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Intrinsic Work Satisfaction by Doctoral Program: Minnesota Satisfaction Questionnaire (MSQ)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	47.61	23.80	.38	.68*
Within groups	105	6505.60	61.95		
Total	107	6553.21			

Group	N	Mean	Standard deviation
Clinical	32	49.15	5.80
Counseling	21	49.00	9.42
Rehabilitation	55	50.41	8.26
Total	108	49.52	7.83

* $p > .05$.

rehabilitation psychology doctoral programs (see Table 12). The mean score of clinical psychology trained respondents is 76.2 with a standard deviation of 8.0. The mean score of counseling psychology trained respondents is 76.0 with a standard deviation of 13.3. The mean score of rehabilitating psychology trained respondents is 79.1 with a standard deviation of 13.1.

Table 11

ANOVA Summary, Group Means, and Standard Deviations of Respondents' Extrinsic Work Satisfaction by Doctoral Program: Minnesota Satisfaction Questionnaire (MSQ)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	140.85	70.42	1.66	.19*
Within groups	105	4450.66	42.38		
Total	107	4591.51			

Group	<u>N</u>	Mean	Standard deviation
Clinical	32	19.12	3.56
Counseling	21	22.19	8.60
Rehabilitation	55	21.23	6.90
Total	108	20.85	6.35

* $p > .05$.

Table 12

ANOVA Summary, Group Means, and Standard Deviations of Respondents' General Work Satisfaction by Doctoral Program: Minnesota Satisfaction Questionnaire (MSQ)

	Degrees of freedom	Sum of squares	Mean squares	F ratio	F probability
Between groups	2	239.76	119.88	.85	.43*
Within groups	105	14833.42	141.27		
Total	107	15073.18			

Group	<u>N</u>	Mean	Standard deviation
Clinical	32	76.18	8.02
Counseling	21	76.00	13.34
Rehabilitation	55	79.09	13.10
Total	108	77.09	11.49

* $p > .05$.

Attitudes toward disabled persons. Research Question 25: Do differences exist in the attitudes toward disabled persons among male respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A significant difference, $F(2, 81) = 3.96, p < .05$, was found in the attitudes toward disabled persons among male respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 29). The mean score of clinical psychology trained male respondents is 79 with a standard deviation of 14. The mean score of counseling psychology trained male respondents is 88 with a standard deviation of 12. The mean score of rehabilitation psychology trained male respondents is 90 with a standard deviation of 17. Normative data indicate that the mean score of male non-disabled persons is 73 with a standard deviation of 15.

Research Question 26: Do differences exist in the attitudes toward disabled persons among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs?

A non-significant difference, $F(2, 17) = 1.60, p > .05$, was found in the attitudes toward disabled persons among female respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs (see Figure 29). The mean score of clinical psychology trained female respondents is 84 with a standard deviation of 10. The mean score of counseling psychology trained female respondents is 82 with a standard deviation of 4. The mean score of rehabilitation psychology trained female respondents is 92 with a standard deviation of 10. Normative data indicate that the mean score of female non-disabled persons is 75 with a standard deviation of 13.

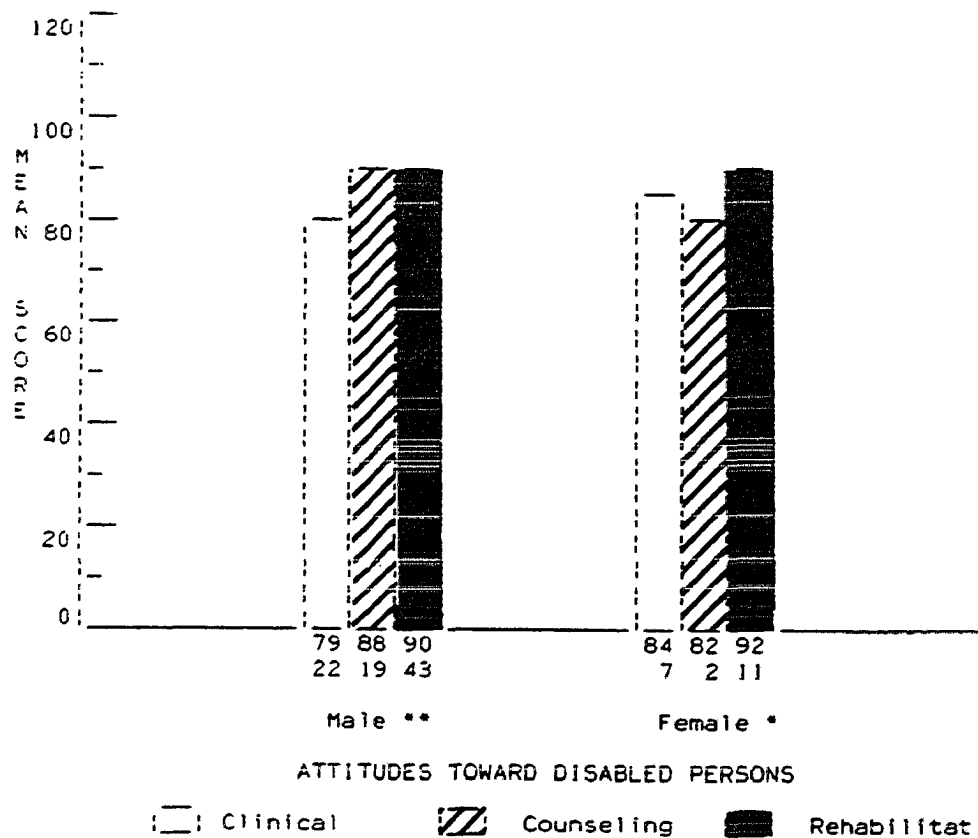


Figure 29. Mean score of male and female respondents' attitudes toward disabled persons by doctoral program. (Numbers below percentages represent the total number of responses for each adequacy of preparation category; $N = 104$.) Note. Graph bars are represented to the nearest 5%.

* $p < .05$. ** $p < .05$.

Summary

There were 26 research questions examined in this study. Eleven of the 26 research questions indicated significant differences among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Three significant differences were obtained in the objective professional characteristics and eight significant differences in the subjective professional characteristics of rehabilitation psychologists.

CHAPTER V

SUMMARY AND DISCUSSION

This study revealed that there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs. A summary of the results of the research questions will be presented and discussed. The limitations of the study will also be discussed in this chapter along with recommendations for future research. The implications of this study will conclude this chapter.

Summary and Discussion of the Results of the Research Questions

The purpose of this study was to examine whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs. The objective professional characteristics include educational background, professional background, and professional activities. The subjective professional characteristics include evaluation of academic preparation, perceived knowledge of rehabilitation psychology, theoretical orientations, primary goals for patients or clients, perceived practitioner competencies, work satisfaction, and attitudes toward disabled persons.

Objective Professional Characteristics

Educational background:

1. There is no significant difference ($p > .05$) in the highest academic degree obtained among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The minimum standard for election to member status in the American Psychological Association is a doctoral degree. Additionally, the majority of regionally accredited doctoral programs in clinical, counseling, and rehabilitation psychology offer graduate study for the Doctor of Philosophy (Ph.D.) degree.

2. There is a significant difference ($p < .01$) in the settings of the pre-doctoral internship among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Clinical psychology trained respondents indicated internships primarily at hospital or medical centers and veterans administration hospitals. Counseling psychology trained respondents indicated internships primarily at veterans administration hospitals, hospitals or medical centers, and university counseling centers. Rehabilitation psychology trained respondents indicated internships at hospital or medical centers, rehabilitation facilities, veterans administration hospitals, university counseling centers, and mental health agencies. Historically, clinical trained students have interned primarily at hospital or medical centers and veterans administration hospitals, and counseling trained students have interned primarily at veterans administration hospitals and university counseling centers.

Rehabilitation psychology trained respondents indicated a lower percentage of internships at hospitals and medical centers than clinical psychology trained respondents and a lower percentage of internships at veterans administration hospitals than clinical and counseling psychology trained respondents. Rehabilitation psychology trained respondents indicated a higher percentage at other internship settings, which are primarily rehabilitation facilities, and a more distributed percentage of internships across settings. The distribution of rehabilitation trained respondents at hospital or medical centers, rehabilitation facilities, and veterans administration hospitals may be due to the rehabilitation services offered in each of these settings.

Professional background:

3. There is a significant difference ($p < .01$) in the licensure status among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. A lower percentage of rehabilitation psychology trained respondents, as compared to clinical and counseling psychology trained respondents, indicated they are licensed psychologists. This finding may be due to the lack of American Psychological Association approved doctoral programs in rehabilitation psychology or may be due to a lesser need or importance of licensure status for rehabilitation psychology trained respondents, or a combination of both.

4. There is no significant difference ($p > .05$) in the number of years of post-doctorate work experience among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The mean number of years of post-doctorate work experience for all respondents is 13.4, with a standard deviation of

7.7, which suggests this study may have examined differences among experienced respondents possibly well established in their professional careers.

Professional activities:

5. There is no significant difference ($p > .05$) in the primary work settings among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Respondents indicated that their primary work settings are treatment centers, colleges or universities, and private practice. This finding suggests that each type of doctoral program is training students for careers as practitioners and academicians.

There is a significant difference ($p < .05$) in the primary work settings between respondents with seven years or less of work experience and respondents with eight years or more work experience. The less experienced respondents primarily indicated treatment centers and private practice as their primary work settings. The more experienced respondents primarily indicated treatment centers, colleges and universities, and private practice as their primary work settings. The lower percentage of more experienced respondents in treatment centers and the higher percentage of more experienced respondents in academia may be due to the preference of less experienced respondents to gain experience as practitioners or may be due to the limited employment opportunities available in academia, especially to less experienced applicants.

6. There are no significant differences ($p > .05$) in the major functions among respondents trained in clinical, counseling, and rehabilitation psychology

doctoral programs. The most frequently indicated major functions were therapy and assessment, followed closely by training and education and professional consultation. Clinical psychology trained respondents indicated most frequently therapy, assessment, and training and education. Rehabilitation psychology trained respondents indicated most frequently professional consultation, assessment, therapy, and training and education. The high percentage of rehabilitation psychology trained respondents that indicated professional consultation as a major function may be due to the emphasis on professional consultation in the rehabilitation psychology doctoral programs.

There is a significant difference ($p < .05$) in the major function of assessment between respondents with seven years or less work experience and respondents with eight years or more work experience. A higher percentage of the less experienced respondents, as compared to the more experienced respondents, indicated performing assessment. This difference may be partially due to an increased emphasis in recent years in assessment training in doctoral programs (Whiteley, 1980).

7. There are no significant differences in the ability to competently utilize assessment measures of intelligence ($p > .05$) and personality ($p > .05$), but there are significant differences in the ability to competently utilize assessment measures of vocation ($p < .001$) and neuropsychology ($p < .01$) among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. A higher percentage of clinical psychology trained respondents indicated competence in utilizing neuropsychological assessment measures than counseling and rehabilitation psychology trained respondents, and a higher percentage of counseling and rehabili-

tation psychology trained respondents indicated competence in utilizing vocational assessment measures than clinical psychology trained respondents. These findings may be partially due to the historical emphasis of vocational assessment in counseling psychology, the practical utility of vocational assessment in rehabilitation psychology, and the emphasis in clinical psychology on pathology and neurological and medical-related services.

There is a significant difference ($p < .05$) in the ability to competently utilize vocational measures between respondents with seven years or less work experience and respondents with eight years or more work experience. A higher percentage of more experienced respondents indicated utilizing assessment measures than less experienced respondents. This finding may be partially due to a change in recent years in the emphasis of counseling psychology programs from guidance and vocational to more developmental and diagnostic (Whiteley, 1980).

Subjective Professional Characteristics

Evaluation of academic preparation.

8. There is a significant difference ($p < .05$) in the perceived difficulty adjusting to the first work experience in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Clinical psychology trained respondents indicated a higher percentage of average difficulty adjusting to their first work experience in rehabilitation than counseling and rehabilitation psychology trained respondents. Additionally, counseling and rehabilitation psychology trained respondents indicated a higher percentage of below

average difficulty adjusting to their first work experience in rehabilitation than clinical psychology trained respondents. The rehabilitation psychology literature suggests the rehabilitation psychology trained respondents have less difficulty adjusting to their first work experience in rehabilitation primarily because of the formal training in rehabilitation psychology and previous exposure to rehabilitation patients in practica and other field experiences. However, counseling psychology trained respondents also indicated a similar percentage of below average difficulty adjusting to their first work experience in rehabilitation. This cannot be accounted for by practica experience, but may be due to the philosophical emphasis in counseling psychology programs on psychological strengths and abilities and developmental issues. The rehabilitation psychology literature indicates that an intervention emphasis on abilities rather than disabilities is more appropriate and successful when working with rehabilitation populations.

There is a significant difference ($p < .05$) in the perceived difficulty adjusting to the first work experience in rehabilitation between respondents with seven years or less work experience and respondents with eight years or more work experience. The less experienced respondents indicated a higher percentage of above average difficulty adjusting than more experienced respondents. The more experienced respondents indicated a higher percentage of below average difficulty adjusting than the less experienced respondents. These findings suggest that recall of perceived difficulty adjusting to the first work experience in rehabilitation may be affected by the number of years since the first work experience in rehabilitation. Less experienced respondents may be overestimating the difficulty adjusting and/or more

experienced respondents may be underestimating the difficulty adjusting to their first work experience in rehabilitation. These differences may also be due to the increased demands and responsibilities required of rehabilitation psychologists in recent years.

9. There is a significant difference ($p < .01$) in the perceived adequacy of doctoral programs' preparation for work in rehabilitation among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Clinical psychology trained respondents indicated a higher percentage of adequacy of doctoral programs' preparation than counseling and rehabilitation psychology trained respondents. Additionally, counseling and rehabilitation psychology trained respondents indicated a higher percentage of more than adequate preparation of their doctoral programs than clinical psychology trained respondents. The higher percentage of more adequate preparation by counseling and rehabilitation psychology trained respondents may be due to the exposure of rehabilitation psychology respondents to both classroom and practica relevant experiences and the exposure of counseling psychology respondents to theory and philosophy that emphasizes psychological strength and ability.

Perceived knowledge of rehabilitation psychology:

10. There is a significant difference ($p < .05$) in the perceived knowledge of theory in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Clinical and counseling psychology trained respondents indicated a higher percentage of average perceived

knowledge of theory in rehabilitation psychology than rehabilitation psychology trained respondents. Additionally, rehabilitation psychology trained respondents indicated a higher percentage of high perceived knowledge of theory in rehabilitation psychology than counseling and clinical psychology trained respondents. The rehabilitation psychology trained respondents' higher percentage of high perceived knowledge responses may be due to formal academic exposure to theory in the rehabilitation psychology doctoral programs.

11. There is no significant difference ($p > .05$) in the perceived knowledge of research in rehabilitation psychology among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. This finding may suggest that knowledge of the research can be acquired during the internship or through work experience.

Theoretical orientation:

12. There are no significant differences ($p > .05$) in the primary theoretical orientations among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents indicated cognitive-behavioral and eclectic as their primary theoretical orientations. This finding suggests that respondents trained in different types of doctoral programs may be more similar, with regard to theoretical orientation, than the rehabilitation psychology literature indicates.

13. There are significant differences ($p < .01$) in the primary theoretical orientations taught by doctoral programs as perceived among respondents trained in

clinical, counseling, and rehabilitation psychology doctoral programs. Clinical psychology trained respondents indicated they were taught a higher percentage of psychodynamic theoretical orientations and a lower percentage of humanistic theoretical orientations than counseling and rehabilitation psychology trained respondents. However, clinical, counseling, and rehabilitation psychology trained respondents indicated the primary theoretical orientation taught in their doctoral program was eclectic. These findings suggest the doctoral programs are similar in their emphasis of cognitive-behavioral and eclectic theoretical orientations but are significantly different in their emphasis of psychodynamic and humanistic theoretical orientations.

14. There are significant differences ($p < .05$) in the primary theoretical orientations at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Clinical psychology trained respondents indicated a higher percentage of cognitive-behavioral theoretical orientations at their primary work setting than counseling and rehabilitation psychology trained respondents. Additionally, counseling and rehabilitation psychology trained respondents indicated a higher percentage of eclectic theoretical orientations at their primary work setting than clinical psychology trained respondents. These findings are difficult to interpret because the respondents do not work at significantly different primary work settings. The findings may be partially due to the different theoretical orientations taught by the doctoral programs and its affect on the respondents' understanding and recognition of the theoretical orientations.

Primary goal for patients or clients:

15. There are no significant differences ($p > .05$) in the primary goals for patients or clients among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents indicated self-adjustment and independence as their primary goals for patients or clients. This finding suggests respondents trained in different types of doctoral programs may be more similar, with regard to primary goal for patients or clients, than the rehabilitation psychology literature indicates.

16. There are significant differences ($p < .001$) in the primary goals for patients or clients taught by doctoral programs as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Rehabilitation psychology trained respondents indicated they were taught a higher percentage of employment goals for patients or clients than clinical and counseling psychology trained respondents. Additionally, clinical and counseling psychology trained respondents indicated they were taught a higher percentage of self-adjustment goals for patients or clients than rehabilitation psychology trained respondents. These findings suggest that clinical and counseling psychology doctoral programs are more similar in their teaching of goals for patients or clients than rehabilitation psychology doctoral programs.

17. There are significant differences ($p < .05$) in the primary goals for patients or clients at work settings as perceived among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Counseling and rehabilitation psychology trained respondents indicated a higher percentage of

employment goals for patients or clients at their work settings than clinical psychology trained respondents. Additionally, clinical and rehabilitation psychology trained respondents indicated a higher percentage of independence goals for patients or clients at their primary work setting than counseling psychology trained respondents. Counseling psychology trained respondents indicated a higher percentage of self-adjustment goals for patients or clients at their work setting than clinical and rehabilitation psychology trained respondents. There are no significant differences in the primary work settings among clinical, counseling, and rehabilitation psychology trained respondents; therefore, the findings may be partially due to the different primary goals taught in the doctoral programs and its affect on the respondents' understanding and recognition of primary goals for patients or clients.

Perceived practitioner competencies:

18. There is no significant difference ($p > .05$) in the perceived attainment of assessment skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents indicated a perceived high attainment of assessment skills. This finding suggests respondents trained in different types of doctoral programs perceive or have obtained a similar level of assessment skills.

19. There is no significant difference ($p > .05$) in the perceived attainment of counseling skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Counseling and rehabilitation psychology trained respondents indicated a perceived high attainment of counseling skills.

Clinical psychology trained respondents indicated a perceived moderately high attainment of counseling skills. These findings are contrary to the rehabilitation psychology literature which suggests there may be a disparity of counseling skills among psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

20. There is no significant difference ($p > .05$) in the perceived attainment of case management skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Counseling and rehabilitation trained respondents indicated a perceived moderately high attainment of case management skills. Clinical psychology trained respondents indicated a moderate attainment of case management skills. These findings are also contrary to the rehabilitation psychology literature which suggests there may be a disparity of case management skills among psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

21. There is no significant difference ($p > .05$) in the perceived attainment of professional and community involvement skills among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents indicated a perceived moderate attainment of professional and community involvement skills. This finding suggests that skills in professional and community involvement can be learned during the internship or work experience.

Work satisfaction:

22. There is no significant difference ($p > .05$) in the intrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents obtained an intrinsic satisfaction score slightly above the normative total group mean.

23. There is no significant difference ($p > .05$) in the extrinsic work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents obtained an extrinsic satisfaction score slightly above the normative total group mean.

24. There is no significant difference ($p > .05$) in the general work satisfaction among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. The respondents obtained a general satisfaction score slightly above the normative total group mean.

Attitudes toward disabled persons:

25. There is no significant difference ($p > .05$) in the attitudes toward disabled persons among male respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Counseling and rehabilitation psychology trained respondents scored higher than clinical psychology trained respondents. This difference can be interpreted to suggest that clinical psychology trained respondents perceive disabled persons as being less similar to non-disabled persons as compared to the perceptions of counseling and rehabilitation trained respondents.

However, clinical, counseling, and rehabilitation psychology trained male respondents all scored well above the normative mean score of male non-disabled persons.

26. There is no significant difference ($p > .05$) in the attitudes toward disabled persons among female respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Clinical, counseling, and rehabilitation psychology trained female respondents all scored well above the normative mean score of female non-disabled persons.

General Discussion

The rehabilitation psychology literature suggests many rehabilitation psychologists are not adequately trained for work in rehabilitation. However, there are few research studies to support this position. The purpose of this study was to examine whether there are significant differences in objective and subjective professional characteristics among psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

There were 26 research questions examined in this study. Eleven of the 26 research questions indicated significant differences among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. Three significant differences were obtained in the objective professional characteristics and eight significant differences in the subjective professional characteristics of rehabilitation psychologists.

None of the 11 significant differences obtained indicate or suggest that respondents trained in clinical, counseling, and rehabilitation psychology are limited in their effectiveness as rehabilitation psychologists. Differences among the types of doctoral programs are primarily due to the comparison of high or above average rated responses with average rated responses. The significant differences indicate there are variations in the objective and subjective professional characteristics, but that these differences do not imply deficits or limitations within or among the respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs.

The results of this study do not support the rehabilitation psychology literature which suggests that persons trained in counseling psychology doctoral programs are less prepared and experience more difficulty than psychologists trained in rehabilitation psychology doctoral programs. Counseling and rehabilitation psychology trained respondents both indicated a similar percentage of below average difficulty adjusting to their first work experience in rehabilitation. Additionally, counseling and rehabilitation psychology trained respondents also perceived their respective doctoral programs' preparation as more than adequate.

The results of this study support the rehabilitation psychology literature that persons trained in clinical psychology doctoral programs are less prepared and experience more difficulty than respondents trained in rehabilitation psychology doctoral programs. However, clinical psychology respondents indicated average academic preparation and average difficulty adjusting to their first work experience in rehabilitation.

Some of the most important findings of this study are revealed in the non-significant differences among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. These findings indicate that there are no significant differences in the perceived practitioner competencies, primary work settings, major functions, theoretical orientations, and primary goals for patients or clients among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. This finding suggests that the skills and knowledge required to function effectively as a rehabilitation psychologist can be acquired during the internship or through work experience. As this study has revealed, there are some significant differences, but there are even more significant similarities among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. It is therefore the conclusion of this study that current rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs appear to be adequately prepared for work in rehabilitation.

The 11 significant differences obtained suggest that respondents from each type of doctoral program have unique strengths and contributions to offer the field of rehabilitation psychology. Strengths of respondents graduated from clinical psychology doctoral programs include a very high licensure percentage and assessment competency with intelligence, personality, and neuropsychological measures. Strengths of respondents graduated from counseling doctoral programs include a high licensure percentage, assessment competency with intelligence, personality, and vocational measures, below average difficulty adjusting to their first work experience in rehabilitation, more than adequate preparation for work in rehabilitation, and

attitudes toward disabled persons. Strengths of respondents graduated from rehabilitation psychology doctoral programs include assessment competency with vocational measures, below average difficulty adjusting to their first work experience in rehabilitation, more than adequate preparation for work in rehabilitation, high knowledge of theory in rehabilitation, and attitudes toward disabled persons.

Limitations of the Study

There were four major limitations of this study. The first limitation is the subjects of this study had an average of more than 13 years of post-doctorate work experience. After 13 years, psychologists that were inadequate or ineffective in rehabilitation may have either entered other fields of psychology or developed more adequate or effective skills over time. Therefore, the number of years of post-doctorate work experience may have confounded whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

The second limitation of this study is the results can only be generalized to rehabilitation psychologists that are members in Division 22 of the American Psychological Association. The advertisement urging the participation of non-Division 22 rehabilitation psychologists in the journal of Rehabilitation Education resulted in only two returned surveys. Therefore, the limited survey return of non-

Division 22 rehabilitation psychologists did not allow for a comparison of Division 22 and non-Division 22 rehabilitation psychologists.

The third limitation of this study is that the research implemented the posttest-only with nonequivalent groups research design. This research design is not normally sufficient for permitting strong tests of causal hypotheses because it fails to rule out plausible alternative interpretations. The lack of pretests lead to the possibility that any differences between the groups may be attributed to either treatment effects or selection differences.

The fourth limitation is that all the data for this study was obtained through a mailed self-report survey. The self-report survey is a unidimensional and potentially biased assessment of a sample. However, Bolton (1985) reports that surveys are the most reliable and valid method of obtaining information about individuals that cannot be directly observed by peers or supervisors.

Recommendations for Future Research

Based upon this study, the suggestions for future research in the area of rehabilitation psychology include the following:

1. A replica of this study examining rehabilitation psychologists that are members and non-members of Division 22 having 0 to 5 years of post-doctorate work experience in rehabilitation. This study would focus on less experienced professionals, possibly providing a more valid measure of psychology doctoral programs' training and preparation for rehabilitation. This study would also

compare rehabilitation psychologists that are members and non-members of Division 22, possibly providing generalizability of results to all rehabilitation psychologists.

2. A survey study of rehabilitation psychologists' recommendations of the most essential academic and practica experiences for preparation in rehabilitation psychology. This survey would provide the Education and Training Committee of Division 22 with a potential list of courses and practica experiences and settings which are most essential in the training process.

3. A five-year longitudinal study of recent psychology doctoral graduates entering the field of rehabilitation. The study may include an annual survey and interview exploring their work experience. The purpose of this research would be to examine the process of professional development in rehabilitation psychology. A list of recent graduates and their primary work setting could be provided annually by participating psychology doctoral programs. A qualitative research study examining the process and outcome of professional development in rehabilitation psychology would also provide the Education and Training Committee of Division 22 with a potentially greater understanding of integrating the student role and the emerging professional role.

Implications of the Study

Two of the 11 significant differences among the respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs have significant implications for the training of rehabilitation psychologists. Counseling and rehabili-

tation psychology trained respondents indicated a significantly higher percentage of below average difficulty responses adjusting to their first work experience and a significantly higher percentage of more than adequate preparation of doctoral program responses than clinical psychology trained respondents. These findings may be due to the exposure of rehabilitation psychology respondents to both classroom and practica relevant experiences, and the exposure of counseling psychology respondents to theory and philosophy that emphasizes psychological strength and ability.

It is recommended that each type of doctoral program training students interested in rehabilitation psychology offer a practicum experience in a rehabilitation setting. The American Psychological Association requires 400 hours of total practica experience, which usually requires two years of practica classes. It is recommended that the site of the first year practicum be any setting that would provide the student with the opportunity to develop basic counseling skills. the site of the second year practicum should be at a comprehensive rehabilitation facility with supervision provided by a licensed rehabilitation psychologist. Readings of principles of rehabilitation psychology, theories and research in rehabilitation psychology, history of rehabilitation practice, medical psychology, and health care delivery systems should be assigned and discussed throughout the year. These recommendations were initially stated in 1958 when the Princeton conference recommended that "late in the doctoral program, the graduate student be exposed to settings at a comprehensive rehabilitation center with patients of varying types of disabilities" (Wright, 1959, p. 121).

Summary

Most rehabilitation psychologists are not trained in rehabilitation psychology doctoral programs or psychology doctoral programs which include academic coursework or practica experience in a rehabilitation facility (Shontz & Wright, 1980). The rehabilitation psychology literature suggests a significant disparity exists between the demand for competent rehabilitation psychologists and the adequate training in psychology doctoral programs of psychologists for work in rehabilitation (Gold et al., 1982; Shontz & Wright, 1980; Spear & Schoepke, 1981). Shontz and Wright (1980) conclude that it is not possible to adequately learn rehabilitation psychology through an internship or on-the-job training program; therefore, rehabilitation psychologists need to be trained in rehabilitation psychology doctoral programs. The purpose of this study was to examine whether there are significant differences in objective and subjective professional characteristics of rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs.

Eleven of the 26 research questions of this study indicated significant differences in objective and subjective professional characteristics of rehabilitation psychologists among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. However, none of the 11 significant differences obtained indicate or suggest respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs are limited in their effectiveness as rehabilitation psychologists. The findings of this study indicate there are no significant differences

in the perceived practitioner competencies, primary work settings, major functions, theoretical orientations, and primary goals for patients or clients among respondents trained in clinical, counseling, and rehabilitation psychology doctoral programs. It appears that the skills and knowledge required to function effectively as a rehabilitation psychologist can be acquired during the internship or through work experience.

It is the conclusion of this study that rehabilitation psychologists trained in clinical, counseling, and rehabilitation psychology doctoral programs appear to be adequately prepared for work in rehabilitation. The findings suggest that respondents from each type of doctoral program have unique strengths and contributions to offer the field of rehabilitation. It is the recommendation of this study that each type of doctoral program training persons interested in rehabilitation psychology provide such students with practical experience in a rehabilitation setting and exposure to relevant rehabilitation psychology coursework.

APPENDIX A
MINNESOTA SATISFACTION QUESTIONNAIRE

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UNIVERSITY OF MINNESOTA
TWIN CITIES

Department of Psychology
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May 22, 1990

Daniel Kelley
232 Teak Lane
Streamwood, IL 60107

Dear Mr. Kelley:

Thank you for requesting materials published by Vocational Psychology Research. We have reviewed your request and are granting permission to reproduce 200 copies of the Minnesota Satisfaction Questionnaire but only upon receipt of \$30.00 in royalty fees.

If you have any questions, feel free to call us at 612-625-1367.

Sincerely,

A handwritten signature in black ink that reads "Donald E. Eggerth" followed by the initials "bb".

Donald E. Eggerth
Assistant Director
Vocational Psychology Research

DEE/cab

APPENDIX B
MEASUREMENT OF ATTITUDES TOWARD
DISABLED PERSONS (ATDP)

APPENDIX C

REHABILITATION SKILLS INVENTORY (RSI)--SHORT FORM

APPENDIX D
REHABILITATION PSYCHOLOGIST SURVEY (RPS)

REHABILITATION PSYCHOLOGIST SURVEY

Please indicate your response by circling the appropriate number:

1. What was the setting of your pre-doctoral internship? (Circle One)
 - University Counseling Center 1
 - Veterans Administration 2
 - Hospital / Medical 3
 - Mental Health Agency 4
 - None 5
 - Other (Specify) _____ 6
2. What is your primary work setting? (Circle One).
 - College / University 1
 - Treatment Center, Hospital, Clinic 2
 - Federal / State Agency 3
 - Private Practice 4
 - Other (Specify) _____ 5
3. Indicate the major functions (8 or more hours per week) you perform at your primary work setting. (Circle all appropriate responses)
 - Therapy (Individual, marital, family, etc.) 1
 - Assessment / Testing 2
 - Professional Consultation 3
 - Training / Education 4
 - Research 5
 - Other (Specify) _____ 6
4. Which assessment measures can you currently competently utilize? (Circle all appropriate responses)
 - Intelligence Tests 1
 - Personality Tests 2
 - Vocational Tests 3
 - Neuropsychological Tests 4
 - Other (Specify) _____ 5
5. Indicate your perceived knowledge of the theory of rehabilitation psychology. (Circle One)
 - High 1
 - Average 2
 - Low 3
6. Indicate your perceived knowledge of the research in rehabilitation psychology. (Circle One)
 - High 1
 - Average 2
 - Low 3
7. What was the primary theoretical orientation taught in your doctoral graduate program? (Circle One)
 - Psychodynamic 1
 - Humanistic 2
 - Cognitive-Behavioral 3
 - Eclectic 4
 - Other (Specify) _____ 5
8. What is the primary theoretical orientation of your work setting? (Circle One)
 - Psychodynamic 1
 - Humanistic 2
 - Cognitive-Behavioral 3
 - Eclectic 4
 - Other (Specify) _____ 5

9. What is your primary theoretical orientation? (Circle One)
 - Psychodynamic 1
 - Humanistic 2
 - Cognitive-Behavioral 3
 - Eclectic 4
 - Other (Specify) _____ 5
10. Relative to your academic training, indicate your perceived level of difficulty adjusting to your first post-doctoral rehabilitation work experience (Circle One)
 - Very much difficulty 1
 - Above average difficulty 2
 - Average difficulty 3
 - Below average difficulty 4
 - Very low difficulty 5
11. Indicate how adequately your doctoral graduate program prepared you for work in rehabilitation (Circle One)
 - Very adequately 1
 - Somewhat adequately 2
 - Adequately 3
 - Less than adequately 4
 - Not adequately 5
12. What is your primary goal for most patients/clients? (Circle One)
 - Employment 1
 - Independence 2
 - Self-Adjustment 3
 - Other (Specify) _____ 4
13. At your primary work setting, what is the primary goal for most patients/clients? (Circle One)
 - Employment 1
 - Independence 2
 - Self-Adjustment 3
 - Other (Specify) _____ 4
14. In your doctoral graduate program, what was taught as the primary goal for most patients/clients? (Circle One)
 - Employment 1
 - Independence 2
 - Self-Adjustment 3
 - Other (Specify) _____ 4
15. Estimate the percentage of time you spend every week with each population (Estimate to the nearest 10%)

(Estimate to the nearest 10%)	Percentage of time
Orthopedic Impairment	_____ %
Sensory Impairment	_____ %
Mental Retardation	_____ %
Mental Illness	_____ %
Neurological Impairment	_____ %
Non-Disabled	_____ %
Other (Specify) _____	_____ %
Total 100%	

PERSONAL BACKGROUND AND CAREER HISTORY

- | | | | |
|--|----------|---|----|
| 1. In what year were you born? | 19 _____ | 8. Are you a licensed psychologist? | |
| 2. Please indicate your sex: | | Yes | 1 |
| Male | 1 | No | 2 |
| Female | 2 | 9. In what state(s) are you a licensed psychologist? | |
| 3. What race do you consider yourself? | | _____ | |
| White | 1 | _____ | |
| Black | 2 | 10. What is your personal annual income? | |
| Oriental | 3 | Less than \$10,000 | 1 |
| Hispanic | 4 | \$10,000 - 19,999 | 2 |
| Other (Specify) _____ | 5 | \$20,000 - 29,999 | 3 |
| 4. Please indicate your state of residence: _____ | | \$30,000 - 39,999 | 4 |
| 5. Indicate highest academic degree obtained: | | \$40,000 - 49,999 | 5 |
| Ph.D. | 1 | \$50,000 - 59,999 | 6 |
| Ed.D. | 2 | \$60,000 - 69,999 | 7 |
| Psy D. | 3 | \$70,000 - 79,999 | 8 |
| Other (Specify) _____ | 4 | \$80,000 - 89,999 | 9 |
| 6. Indicate the year you obtained your highest academic degree | 19 _____ | \$90,000 - 99,999 | 10 |
| 7. Indicate type of doctoral graduate program: | | \$100,000 or more | 11 |
| Clinical | 1 | 11. Please indicate number of years post-doctorate work experience: _____ | |
| Counseling | 2 | | |
| Rehabilitation | 3 | | |
| Counseling-Rehabilitation | 4 | | |
| School | 5 | | |
| Other (Specify) _____ | 6 | | |

APPENDIX E
COVER LETTER OF SURVEY

DIVISION OF REHABILITATION PSYCHOLOGY

DIVISION 22, AMERICAN PSYCHOLOGICAL ASSOCIATION

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November 13, 1989

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Richard J. Morris, Ph.D.
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Dear Division 22 Member,

On behalf of the Education and Training Committee of Division 22 of the American Psychological Association, we are conducting a study of the educational and professional characteristics of rehabilitation psychologists. The findings of this study will be used by the committee to address future directions in the education and training of rehabilitation psychologists. Additionally, the findings will be used to develop a current definition of the rehabilitation psychologist.

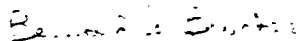
To obtain the necessary information, a statistical probability sample has been selected from Division 22 of the American Psychological Association. Your name has been selected in this manner, and I am therefore writing to ask you to fill out the enclosed questionnaire.

Filling out this questionnaire should not take very much time since most of the questions can be answered by simply circling an appropriate response following each question. Let me assure you the information you supply will be treated in absolute confidence; the results will be reported only in aggregative form.


We are looking forward to your participation, and thank you in advance for your cooperation. Please fill out the questionnaire at your earliest convenience and return it in the envelope provided.

Thank you very much for your cooperation.

Sincerely,



Bernard S. Brucker, Ph.D.
 President - Division 22



Chrisann Schiro-Geist, Ph.D.
 Chair Person - Education and
 Training Committee

REFERENCES

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VITA

DANIEL GLEN KELLEY
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EDUCATION

- Ph.D. Counseling Psychology, University of Illinois at Urbana-Champaign.
 Area of Specialization: Counseling Process. This is an APA approved
 program; expected May 1991.
- M.S. Counseling Psychology, Texas A & M University, College Station, Texas;
 May 1987.
- B.S. Psychology, University of Illinois at Urbana-Champaign; May 1984.

CLINICAL EXPERIENCES

- 5/89 - present Clinical Assessment. Neuropsychological/Intelligence Test Examiner (one-third time), Covenant Medical Center, East Central Illinois Rehabilitation Unit, Urbana, Illinois. Neuropsychological assessment (15) and WAIS-R (25) for a closed head injury rehabilitation facility. Participation in multidisciplinary treatment planning, multidisciplinary professional-support group, and support group for families of closed head injury inpatients. Responsibilities also include initial screening evaluation to assess cognitive and affective functioning. University of Illinois at Urbana-Champaign. Supervised by Dr. Timothy Urbin.
- 8/89 - 12/89 Intelligence Assessment Practicum. WAIS-R (10), WISC-R (2), Kaufman ABC (1), and Stanford Binet (1) administered and interpreted. University of Illinois at Urbana-Champaign. Supervised by Dr. James Rounds.
- 9/88 - 5/89 Advanced Consultation Practicum. Presented workshops and seminars to a variety of organizations, faculty, staff, and students at the University of Illinois at Urbana-Champaign and Parkland College. Topics presented include: Inter-personal Dynamics and Supervisory Styles; Organizational and Group Dynamics--Consequences for Productivity; Leadership and the Decision-Making Process; and Managerial Approaches. University of Illinois at Urbana-Champaign. Supervised by Dr. Joseph Zaccaria.

- 9/87 - 5/88 Advanced Counseling Practicum, Carle Clinic Hospital, Urbana, Illinois. Maintained a case load of six to nine out-patients per week. Patients in the Psychology/Psychiatry Services included adults, couples, and adolescents. Patients in Pediatrics included children and families. Worked with a variety of personality and adjustment disorders. Therapy was both short and long term with an interpersonal cognitive-behavioral orientation. Administered and interpreted MMPI, Rorschach, TAT, CAT, and self-report measures. Member of multidisciplinary facial deformity team. Also participated in intake interviews and pain evaluations. University of Illinois at Urbana-Champaign. supervised by Dr. Gregg Helgesen.
- 1/88 - 5/88 Social Work Practicum, School of Social Work. Provided therapy to two families for six weekly therapeutic sessions. Family issues included juvenile delinquency and dysfunctional interpersonal relations. Consulted with schools and mental health agencies. University of Illinois at Urbana-Champaign. Supervised by Shirley Wattenberg, M.S.W.
- 1/87 - 5/87 Personality Assessment. MMPI (6), Rorschach (5), CPI (1), 16PF (3), and CAT (2) were administered and interpreted. Oral interpretation feedback was provided to each client. University of Illinois at Urbana-Champaign. Supervised by Dr. Marilyn Kohl.
- 1/86 - 5/86 Child Therapy Practicum, Psychology Clinic. Provided short-term therapy for three children experiencing behavioral problems. Consulted with parents and family members. Also participated as co-leader of an eight week group for 10-13 year-old children experiencing difficulties in peer relationships and interpersonal skills. Texas A & M University. Supervised by Dr. Jan Hughes.
- 8/85 - 5/86 Counseling Practicum, Student Counseling Center, Texas A & M University. Maintained a case load of four to six students and couples per week. Worked with a variety of problems including poor self-esteem, depression, relationships problems, career indecision, and difficulties adjusting to the military academy. Other responsibilities included group interpretations of the Strong-Campbell Interest Inventory and Myers-Briggs Type Indicator. Texas A & M University. Supervised by Dr. Judith McConnell.

PROFESSIONAL WORK EXPERIENCE

- 5/88 - 5/90 Training Associate, Pastoral Care and Counseling, Champaign, Illinois. (16 hours per week). Maintained a case load of five to six clients a week. Worked with adults, couples, adolescents, and children with personality and adjustment disorders, dysfunctional interpersonal relationships, and other behavioral problems. Regularly consulted with schools, social agencies, psychiatrists, physicians, and other mental health professionals. Administered and interpreted MMPI (25), Rorschach (3), TAT (6), CAT (4), and other self-report measures. Supervised by Dr. Donald Houts.
- 9/86 - 5/90 Graduate Assistant, Counseling Center, University of Illinois at Urbana-Champaign. Instructor (half-time), Developmental Reading Program. Taught developmental reading and academic strategies to approximately 100 students per semester.
- 2/89 - 5/89 Group Facilitator, Pastoral Care and Counseling, Champaign, Illinois. (three hour sessions/12 weeks). Developed and facilitated a support group for adult individuals experiencing difficulties in interpersonal relationships. Administered and interpreted MMPI for all group members. Consulted with a psychiatrist. Supervised by Dr. Donald Houts.
- 1/85 - 8/85 Graduate Assistant (half-time), Educational Psychology Department, Texas A & M University. Researched enrollment of minorities in APA approved school psychology programs.
- 5/83 - 8/83 Teaching Assistant, Psychology Department, University of Illinois at Urbana-Champaign, Instructor (half-time). Course: Child Psychology. Responsibilities included lecturing, test administration, and grading.

WORKSHOPS AND PRESENTATIONS

- 8/89 Research Proposal: Defining the Rehabilitation Psychologist. Presented to the Committee on Education and Training, Division 22 (Rehabilitation Psychology) of the American Psychological Association, 97th Annual Convention, New Orleans, Louisiana.
- 1/89 "Managerial Approaches." Presented to faculty, staff, and students. Personnel Department, Parkland College, Champaign, Illinois.

- 3/89 "Interpersonal Dynamics of Adult Children from Alcoholic Families." Presented to Advanced Practicum, Counseling Psychology, University of Illinois at Urbana-Champaign.
- 12/88 "Interpersonal Dynamics and Supervisory Styles." Presented to University faculty and staff. Personnel Services Office. University of Illinois at Urbana-Champaign.
- 8/88, 10/88, 12/88, 2/89 "Organizational and Group Dynamics: Consequences for Productivity." Presented to University organizations and staff. University of Illinois at Urbana-Champaign.
- 8/88 "Leadership and the Decision Making Process." Presented to the President's Council at the University of Illinois at Urbana-Champaign.
- 5/87 "Interpersonal Theory and Cognitive-Behavioral Approaches to Family Therapy." Presented to School of Social Work. University of Illinois at Urbana-Champaign.
- 4/87 "Interdisciplinary Approach to Brain-Injured Patients." Presented to Seminar in Developmental Neuropsychology, Psychology Department, University of Illinois at Urbana-Champaign.
- 4/86 "Development of Prosocial Behavior and Peer Acceptance in Children." Seminar presented to the Graduate College of Education, Texas A & M University.

RESEARCH

Dissertation topic: "An Analysis of Professional Characteristics of Rehabilitation Psychologists Trained in Clinical, Counseling, and Rehabilitation Psychology Doctoral Programs." Department of Educational Psychology, University of Illinois at Urbana-Champaign. (Defended April 1990.)

Thesis topic: "Empathy, Prosocial Behavior, and Peer Acceptance in Low Socioeconomic Status Preschool Children." Department of Educational Psychology, Texas A & M University (May 1987).

PROFESSIONAL MEMBERSHIP

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 International Neuropsychological Society
 Student Affiliate Group, Division 17, American Psychological Association