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# DIFFERENTIAL PERCEPTIONS OF PROSPECTIVE PREDOCTORAL PSYCHOLOGY INTERNS: AN EXPERIMENTAL INVESTIGATION OF POTENTIAL BIAS IN SELECTION

A DISSERTATION

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

for the degree

DOCTOR OF PHILOSOPHY

by

HARVEY L. GAYER

DISSERTATION ADVISOR: DR. BETTY E. GRIDLEY

BALL STATE UNIVERSITY

MUNCIE, INDIANA

JULY 1996

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| Committee Chairman | May 30, 1996 Date |
| Committee Member | May 30, 1996 Date |
| Committee Member | 30 May 96 Date |
| Committee Member | May 30, 1996 Date |
| Committee Member | 30 May 1996 Date |

Ball State University

Muncie, Indiana

July 1996

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# DEDICATION

This scholarly achievement is dedicated to my darling wife. It would not be complete without her time, effort, and support.

I have been blessed with a compatible life partner beyond compare. For this blessing, I am fortunate and thankful. Metaphorically speaking, Julie and I have reached the top of this particular mountain together and will share the satisfaction of our accomplishment before setting off for another of our peaks, of which there have been, and will continue to be, many.

# ACKNOWLEDGMENTS

I reached the top of this mountain with the guidance and support of important others, including educators, friends, and family. Aid came in many different forms and each individual is deserving of special recognition. I will try my best beginning with my committee members.

I would like to thank Betty for understanding that doctoral training requires the individual to conquer professional and personal obstacles. She helped me deal with both. Her support of my research, skillful and obliging arguments, tolerance of my anxieties, and faith in my abilities were deeply appreciated.

Jim deserves acknowledgment for encouraging me to set lofty, but realistic, goals, providing me with the means to reach them, and reinforcing me when they were achieved. In addition to making me laugh with his vignettes and witty retorts, he introduced me to two important lessons; keep it simple and omit needless words.

Sharon and Jay were extremely supportive and accommodating and each encouraged thoughtful discourse. Both communicated a belief in me that reflected their humanistic approach to education. Marilyn and Gene were willing, knowledgeable, and dedicated professionals from other parts of the university who I felt fortunate to be associated with.

I now recognize my a few of my peers who were particularly influential and kind. Patrick helped me hone my writing skills and was a willing editorial consultant. His perverse humor - my favorite kind - kept me smiling during tough times. Helen and Linda were my therapists who listened to me endlessly obsess and who helped

keep me focused. I was a true Vygotskian social learner who liked to surround himself with peers that were more experienced, talented, and knowledgeable and these two fit the bill. Lastly, Mitchell was my role model. He did what he had to do to get done, but still managed to have time to enjoy some of life's other splendors.

There are many family members and friends of my family that deserve recognition as well. Without them, I may not have had this opportunity. Although it would be nice to thank them all, I specifically address the one who had a direct impact on this project. This praise goes to my mother who was gracious enough to collect and mail me the 300-plus completed surveys. Thanks Mom.

In closing, P.G. Wodehouse, of Jeeves and Wooster fame, summed up the dissertation process well in The Aunt and the Sluggard when he wrote, "All that stuff about being refined by suffering, you know. Suffering does give a chap a sort of broader and more sympathetic outlook. It helps you to understand other people's misfortunes if you've been through the same thing yourself." Despite the suffering, these people have enabled me to become more refined, understanding, and sympathetic.

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## ABSTRACT

A discrepancy between the number of predoctoral internship applicants and Association of Psychology Postdoctoral and Internship Centers' internship positions has recently been noted (Gloria & Robinson, 1994; Murray, 1996). Applicants now outnumber positions available. This imbalance has caused researchers (e.g., Lopez, Moberly, & Oehlert, 1995) to focus on criteria affecting selection decisions. Researchers, who have relied strictly on non-experimental methodology, have ascertained that important and consistent criteria for intern selectors are breadth and types of clinical experiences, performance during interviews, and letters of recommendation.

A criteria that was not specifically addressed in earlier surveys of intern selectors was doctoral program type (i.e. clinical, counseling, and school psychology). Interestingly, doctoral program type had been hypothesized by Gayer and Gridley (1995) to have a significant impact on intern selection decisions, such that a preference pattern would emerge with clinical applicants preferred over counseling applicants, and counseling applicants preferred over school applicants. This pattern was hypothesized to occur even if application materials from the three doctoral program types were identical. The present study, in the form of an experimental survey utilizing analogue techniques, was developed to test the aforementioned hypothesis. Results confirmed that doctoral program type has a statistically significant, moderate influence on intern screening/selection and that the hypothesized preference patterns pervasively exist across a variety of selector (e.g., gender and doctoral program type attended) and

setting (e.g., geographic location, site type, population density in the site's locale, and socioeconomic status of a site's clientele) variables. Implications of this preference pattern and recommendations for applicants, trainers, and selectors are discussed.

# CHAPTER I

# THE PROBLEM

## Introduction

Before graduation doctoral candidates from clinical, counseling, and school psychology programs accredited by the American Psychological Association (APA) must complete predoctoral internships that require a lengthy and demanding application process. Unlike their counterparts from clinical and counseling psychology, prospective predoctoral interns in school psychology face a dilemma as they decide to apply for internships in traditional school settings such as state hospitals, community mental health settings, and/or other psychiatric facilities. Leaders in the field advise candidates that the traditional venues are becoming less viable alternatives for predoctoral internships for a variety of reasons including inadequate wages, emphasis on testing/special education re-evaluations, and lack of appropriate supervision (Hyman, Rosenfeld, & Olbrich, 1994). Also, prospective interns are directly and/or indirectly advised (Bardon, 1989; D' Amato & Dean, 1989a; Hyman et al., 1994) to seek non-traditional or clinical internships because these internships provide learning opportunities consistent with the extensive training school psychologists receive (Brown & Minke, 1986; Reynolds & Gutkin, 1982). However, while predoctoral interns are advised to apply to clinical internship sites, a stable literature base indicates a limited likelihood that prospective predoctoral interns from school psychology programs will be accepted into clinical internship sites. Typically, these sites are viewed as reserved for predoctoral clinical psychology students.

Selection committees from these sites are often perceived to favor predoctoral interns from clinical psychology programs first and counseling psychology programs second, and school psychology interns third (Dahbany, 1994; Eggert, Laughlin, Hutzell, Stedman, Solway, & Carrington, 1987; Holder & Dodge, 1987; Kurz, Fuchs, Dabek, Kurtz, & Helfrich, 1982; Phillips, 1981; Sturgis, Verstegen, Randolph, & Garvin, 1980). Moreover, many intern selection committees do not even consider applications from prospective interns from school psychology programs (Holder & Dodge, 1987; Krieshok, Cantrell, & Hercey, 1994; Phillips, 1981).

Preferences among directors of clinical internships and other selection committee members for applicants from clinical psychology programs would not be problematic, or ethically indefensible, if there were significant differences in the predoctoral training and applied skills of applicants from each discipline. However, minimal differences exist among the training and skills of clinical, counseling, and school psychologists at all training levels, especially at the preinternship level (Carrington, 1987; Greenfield, Stoltenberg, & Stinson, 1985; Levy, 1984, 1986; Matarazzo, 1987; Rosenfeld, Shimberg, & Thornton, 1983; Tyler, 1992). Thus, if prospective interns from certain types of psychology programs are at an advantage in the clinical internship marketplace, factors other than training, achievement, or skills influence the committee members' decisions.

If prospective predoctoral clinical internship candidates from clinical, counseling, and school psychology programs have similar educational preparation and practicum experiences, and applicants from certain types of programs, especially clinical, appear to have an advantage in the selection process, a form of bias may be indicated. This problem in selection is further compounded as the current shift toward managed health care,

federal and state level economic cut backs, and influx of applicants from a greater variety of psychology programs, including professional (Psy.D.; Doctor of Psychology) and school psychology, conspire to reduce the number of available clinical internships to below the number of prospective interns (APPIC: Association of Psychology Postdoctoral and Internship Centers, 1995; Fox, Kovacs & Graham, 1985; Gloria & Robinson, 1994; Kurz, 1984; Jay S. Zimmerman, personal communication, April 19, 1995). These changes in professional psychology, paired with the preference trends, squeeze prospective predoctoral interns from school psychology programs out of the clinical internship marketplace.

Unfortunately, despite calls for empirical research on the selection process of predoctoral interns in psychology (Ross & Altmaier, 1989, 1990; Smith, 1968; Tedesco, 1979), and the development of instrumentation suitable for that purpose (Holloway & Roehlke, 1987; Plutchnik, Klein, & Contes, 1970; Suran, Crivolio, & Kupst, 1977), internship selection practices have yet to be examined experimentally. Therefore, one is unable to determine if doctoral program type or any other variable such as race, gender, or ability affects selection. Classic methodology developed by Walster, Cleary, and Clifford (1968) affords us the opportunity to examine the influence of certain variables, in particular doctoral program type, on the selection process.

## General Purpose of the Research

The primary purpose of this study was to determine if the application materials of hypothetical prospective predoctoral interns, with the same credentials and from APA accredited clinical, counseling, and/or school psychology programs, were perceived differently by clinical internship selection committee directors and/or members. In other words, did doctoral program type influence the internship selection process? In a second line of investigation, this researcher sought to determine what respondent and/or setting characteristics were associated with differential perceptions.

## Major Research Questions

1) Are prospective predoctoral interns from APA accredited clinical, counseling, and school psychology doctoral programs with identical application materials rated differently by directors of APPIC-listed predoctoral psychology internships and/or intern selection committee members?

2) Are the differences in ratings of prospective predoctoral interns from APA accredited clinical, counseling, and school psychology doctoral programs related to characteristics of the raters and/or the clinical internship settings?

## Research Hypotheses

1) It was hypothesized that prospective predoctoral school psychology interns from APA accredited doctoral programs, with identical application materials, would be rated significantly lower than their counterparts from APA accredited clinical and counseling programs by directors of clinical internships and/or intern selection committee members. It was expected that applicants from clinical programs would be rated most acceptable

and that those from school programs would be rated least acceptable, with those from counseling psychology programs falling in between the two.

2) No hypotheses were forwarded in response to the set of follow up research questions because no researcher has experimentally investigated whether there were intersite differences in selection practices with regard to doctoral program types (Ross & Altmaier, 1989). However, because certain types of settings such as Medical Schools and University Counseling Centers (UCCs) are more frequently associated with clinical and counseling psychology respectively, raters from those settings were expected to look more favorably on interns from their associated discipline.

## Definitions

**Acceptability for employment** is the choice/rating that an internship selection committee member makes when given the opportunity to accept, hold, or reject the applicant for employment.

**Bias** is a "preference or inclination, especially one that inhibits impartial judgment; prejudice" (Berube, 1985, p.175).

**Discrimination** refers to "specific behaviors toward members of a group which are unfair in comparison with behavior toward members of other groups" (Deaux & Wrightsman, 1984, p. 254).

**Intern selection committee member** is a member of a group of professionals based at a particular professional psychology predoctoral internship site who has input into the decision-making process for selecting prospective predoctoral interns.

**Predoctoral psychology internship** has a "duration of one calendar (or academic) year, full-time, or two years, half-time. The internship program itself, ideally, should comprise

an organized sequence of increasingly complex activities, supervised by a licensed psychologist in which the trainee is given the opportunity to act as a responsible professional" (Holloway & Roehlke, 1987, p. 210). The internship serves as the bridge from which the student undergoes the transition to professional.

**Prospective predoctoral interns** have completed the core didactic and appropriate practica requirements in an APA accredited doctoral program in either clinical, counseling, or school psychology and are deemed ready to apply for internship by either the directors of their doctoral training programs or their doctoral committee chairperson.

## Significance of Problem

Experimental methodology to examine predoctoral psychology internship selection practices was used for the first time in this study in order to indicate whether there were differential perceptions of applicants based on doctoral program type. If these appeared, efforts were to be initiated to pinpoint the characteristics of sites and selection committee members with which they were associated. If bias were documented, appropriate individuals, such as those in charge of the internship accreditation process, would hopefully address it so that future prospective interns would be judged on the merit of their application materials, performance in interviews, and accomplishments on other screening procedures, rather than the type of doctoral program in which they are enrolled.

This study is also important because it might afford future prospective predoctoral internship applicants the opportunity to be more aware of the variables impacting the selection process. Specifically, it may help future predoctoral internship applicants understand that individuals may be differentially rated by particular types of selection committee members from differing types of internship sites. Moreover, the information

gathered in this study may be of value to undergraduate and graduate students who are seeking a greater understanding of how the various disciplines in psychology are perceived by future employers of their services. Ultimately, this information will help in their decision making processes regarding application to doctoral programs in applied psychology.

Finally, this investigation is necessary to help school psychology applicants determine if non-traditional internships are feasible opportunities. Indeed, some have argued that applicants from school and counseling programs are "imitators" of clinical psychologists, and, thus, not entirely viable candidates (e.g., Koocher, 1995, p. 2).

## Basic Assumptions

1) Randomized deployment of materials equalized the demographic variables of the directors of clinical internships and/or intern selection committee members and their respective settings.

2) Selection committee members have read the application materials before rating the applicants.

## Basic Limitations of the Study

1) A weakness in this study was that not all information about a given predoctoral applicant was at a selection committee member's disposal. For example, interviews were not possible. However, there were inherent problems related to interviews (Ross & Altmaier, 1989) that were avoided due to their absence. In reducing the amount of available information about an applicant, though, this study oversimplified the actual intern selection process, but still remained very similar to the actual rating procedure.

2) Nonresponse bias, a concern of all survey research, occurred and decreased the representativeness of the remaining sample. Often, it is the case that respondents differ from nonrespondents in meaningful ways (Rosenthal & Rosnow, 1975). For example, respondents are typically better educated, more intelligent, have a higher social class status, and have a higher need for social approval than nonrespondents.

3) Generalization is limited to predoctoral internship selection committee members from internships listed in the Association of Psychology Postdoctoral and Internship Centers' (APPIC) directory (Krieshok et al., 1994).

4) Generalization is limited to those prospective predoctoral applicants who have prepared themselves sufficiently to actively compete for a clinical psychology internship.

# CHAPTER II

# REVIEW OF THE LITERATURE

## Structure and Goals of Review

The present study rests on arguments emanating from two bodies of research: (a) the structure of and the outcomes from applied psychology training programs, and (b) the psychology intern selection process. The former provides evidence that, in general, there are no empirically validated or qualitative differences between the training programs and outcomes of APA accredited clinical, counseling, or school psychology programs. The latter suggests that there are hiring preferences, which may vary with intern selector characteristics and features of sites, for students from a particular doctoral program. Thus, if there is little or no difference between the structure of, and outcomes from, applied psychology training programs, and a certain group of students (i.e., clinical psychology applicants) are offered positions with more frequency than counterparts, selection bias may be present.

In the case of the first argument, this writer will need to demonstrate that minimal differences exist among the structure of and outcomes of APA accredited clinical, counseling, and school psychology programs. Individual students differ in many important ways, but can be quite similar. An attempt is made to discern whether it would be possible to identify applicants from clinical, counseling, or school psychology programs if doctoral program type were to be removed from predoctoral intern application packets.

The second part of the review focuses on the demographics, attitudes, and practices of individuals involved with the selection of predoctoral psychology interns and the sites with which they are associated. This section will point to a pecking order in selection, which has varied with selector characteristics and features of internship sites. The reader is advised to remain aware that both bodies of research rely on surveys and are entirely non-experimental.

## Structure of Traditional Doctoral Training in Applied Psychology

Upon completion of an initial entry-level screening process, which differs from doctoral program to doctoral program in terms of requirements and criteria (vonVorys, Harrower, & Jacobs, 1990), students in APA accredited applied psychology programs (i.e., clinical, counseling, and school psychology) are required to complete core coursework in the biological, social, and cognitive-affective bases of behavior, as well as individual differences. In addition, students must complete courses in research design and methodology, statistics, psychological measurement, and history and systems of psychology (APA, 1986). Concurrent to, and/or following the completion of this coursework, the students proceed to an "advanced sequence (of courses) and apprenticeship experiences (i.e., practica and internships) appropriate to the area of application of psychology representing the student's subsequent career goal; that is, courses and apprenticeships differentially germane to the (potentially licensable) application of generic psychology to (specific) problems and populations" (Matarazzo, 1987, p. 895). While the final predoctoral "apprenticeship" is the predoctoral internship, the academic capstone is usually the completion of a doctoral dissertation or research study of some type.

The course titles and demands of the core and advanced courses may vary from program to program and/or from specialty to specialty, but are generally similar (Matarazzo, 1987). This is also the case for the apprenticeship experiences (Dana & May, 1987; Hecker, Fink, Levasseur, & Parker, 1995). However, it appears that the majority of apprenticeship experiences include elements of psychological assessment/diagnosis, intervention/therapy, consultation, and/or remediation (D'Amato & Dean, 1989b: Tipton, Watkins, & Ritz, 1991).

Finally, it is noteworthy that, unlike many other professional disciplines -- such as law and medicine, which proceed from generic to specialized training -- doctoral level training in psychology proceeds from specialized to generic. This is evidenced by the fact that doctoral programs are specialized by program type (i.e., clinical, counseling, and school psychology), while predoctoral internships and postdoctoral licensure are generically labelled psychology and psychologist respectively.

**Similarity of Training**

It would appear logical that there are both similarities and distinctions in the training of clinical, counseling, and school psychologists. If there were not distinctions, one might wonder why it was necessary to have separate program labels. The purpose of this review, and this study for that matter, was not to enter the philosophical debate about the labels of professional psychologists and training programs. Others have dealt with this issue in depth elsewhere (e.g., Bardon, 1987; Beutler & Fisher, 1994; Greenfield, Stoltenberg, & Stinson, 1985; Levy, 1984, 1986). Literature pertinent to the following question was reviewed: Are the distinctions between predoctoral clinical, counseling, and school psychologists of the nature that one would be unable to discriminate a

psychologist trained in either of the three types of doctoral programs? In order to answer this question, scope, sequences, and outcomes of the programs were comparatively examined.

At the predoctoral training level for clinical, counseling, and school psychologists, there are three stages of potential differentiation. These stages are (a) the initial screening procedure, (b) the core curriculum experience, and (c) the advanced stage of training, which includes specialized coursework and practica. Differences could also occur at postdoctoral stages of training. Additionally, students could gain individualized supplemental training experiences during doctoral programs which may differentiate individuals from counterparts in the other two applied branches of psychology. Because supplemental experiences can vary from student to student rather than from specialty to specialty and because these experiences have not yet been formally studied, the experiences are not addressed.

To prove that differentiation does not always occur or may not occur, each of three stages of predoctoral training must be examined to determine if the literature reveals distinctions. According to Beutler and Fisher (1994, p. 64), there are three cardinal features of differentiation which must be examined at each stage. Features include: (a) the populations and settings in which clients are seen, (b) the methods of assessment and intervention used, and (c) the concepts used to describe problems and solutions. If differentiation along these three features is present, it will be important to examine the degree to which this is so.

The first stage of potential predoctoral differentiation, initial screening, undoubtedly does not allow for the differentiation of psychological specialists because no

training has yet occurred. During the initial screening procedures, students are not screened uniformly by different types of doctoral programs. Different criteria are important to each institution and program, and these criteria, when similar, may be weighted at varying levels of importance in graduate student selection (vonVorys, Harrower, & Jacobs, 1990). Moreover, undergraduate training across institutions and programs provides little more than the basic educational foundations in applied psychology.

On the other hand, certain doctoral program types may have more stringent entrance requirements, such as standardized test scores, undergraduate grade point averages, and letters of reference. Also, students from different undergraduate programs in different institutions may have received varying levels of exposure to clinical, counseling, and/or school psychology. Although institutional affiliation may play a later role in the intern selection process, there are no studies which can be located to document this fact. As such, there can be little doubt that the aforementioned criteria and undergraduate experiences do not differentiate clinical psychologists from counseling or school psychologists. Thus, one might ask, does differentiation occur at the second stage of training?

Matarazzo's (1987) thesis was that the second stage of training, the core curriculum experience, does not differentiate various psychological specialists. Several authors agreed (e.g., Beutler & Fisher, 1994; Phillips, 1986). In response to the question of whether there are identifiable differences in curricula across training programs in psychological specialties, Matarazzo reported that "the faculties of university departments of psychology offer a common core of subject-matter content to graduate students. This

content is similar not only across universities but also within a single department of psychology for students heading for careers in seemingly widely different fields of application of psychology" (p. 893). His conclusion was based on a qualitative comparison of the curricula of students in various predoctoral psychology "specialty tracks."

In addition to Matarazzo's findings, Hamilton (1974), Nathan (1990), and Watkins (1983) discussed past research, most of which was not empirically based, into curriculum differences between clinical and counseling psychology and concluded that there was little difference in the coursework content between these types of programs. Gayer and Gridley (1995) and Gayer and Woodward (1995) also discussed core curricula across program types and suggested that, primarily because of APA requirements (APA, 1986), training programs are similar across the three specialties. Hence, it would appear that differentiation would not occur at the second stage, given the fact that all students receive didactic instruction in the same areas (i.e., biological, cognitive, and social bases of behavior, history and systems, etc.).

Based on the previous research, predoctoral differentiation of psychological specialties, if it occurs at all, must not occur until at least the third stage of pre-internship training in psychology, the advanced training stage. Meaningful differences between clinical, counseling, and school psychologists could definitely arise from this stage of training; however, little empirical data are available with which to make this determination. Further compounding this problem is the lack of uniformity, despite minimal requirements (APA, 1986), in practicum experiences between and within psychological specialties (Dana & May, 1987; Hecker, Fink, Levasseur, & Parker, 1985;

Phillips, 1981). Therefore, one must look to research that compares outcomes for graduates of clinical, counseling, and school psychology programs. By doing this, one can infer back to training in the investigation of whether advanced coursework and practica led to differentiation. These inferences, of course, are inherently problematic because of the intervening experiences which have led to differentiation. Nonetheless, this information is better than no information at all.

Ironically, even at the later stages of training and practice, there is a paucity of comparative studies from which to draw conclusions (Gaddy, Charlot-Swilly, Nelson, & Reich, 1995). In contrast, there is much in the way of philosophical debate (e.g., Beutler & Fisher, 1994; Chin, 1967, Greenfield, Stoltenberg, & Stinson, 1985; Levy, 1984, 1986; Osipow, 1992; Patterson, 1973; Strickland & Helgin, 1987; Tyler, 1987). In spite of the unbalanced ratio, there are a few empirical studies (e.g., Gaddy et.al, McGaha, & Minder, 1993; Ross, Holzman, Handal, & Gilner, 1991; Rosenfeld, Shimberg, & Thornton, 1983; Tipton, 1983; Watkins, Lopez, Campbell, & Himmell, 1986; Wright, 1988) from which some general conclusions can be drawn. These studies can be divided into studies which compared different program's graduates' roles and time spent devoted to each role, and studies which compared test results on the national licensure exam.

As mentioned above, no studies that included empirical comparisons of advanced coursework and practica could be located by this researcher. However, Banikiotes (1977) made qualitative comparisons between clinical and counseling doctoral programs' advanced training. Bankiotes found key parallels in the types of advanced coursework and practica offered between programs, but indicated that programs differed in emphases. In other words, clinical programs, while offering the same general advanced courses as

counseling programs in assessment/diagnosis and therapy, emphasized preparatory training for future work with populations having more psychopathology. On the contrary, counseling programs emphasized training for future work with more "normal", or less pathological, populations. Findings supported Matarazzo's (1987) contention that, in applied psychology, there are broad areas of "content, processes, and principles" (p. 893), which can be applied differently with specific populations in various settings.

Although Banikiotes' study is somewhat dated, it provided evidence of the fundamental similarities and distinctions in the advanced training of clinical and counseling psychologists. The study, however, did not take into account the variability within programs, which may allow students to take elective coursework and practica germane to other specialties (Dana & May, 1987, but also see Beutler & Fisher, 1994, for an opposing viewpoint). In other words, just because specialty training can focus on distinct populations does not mean that differentiation has occurred. Indeed, program emphasis and outcomes are two separate matters. Attention is now placed on outcome studies comparing clinical, counseling, and school psychologists in terms of time spent on various roles, time to degree, and employment settings. Also, two comparative studies which focused on scores on the national Examination for Professional Practice in Psychology (EPPP) were reviewed.

The best place to begin a search for actual differentiation among post-third-stage psychologists would be at the internship level. This is because the internship is the stage of training when the training outcomes are evident in the purest form. However, only one study that attempted to discern the differentiated roles of psychology interns could be located. All other comparative studies were focused on post-internship psychologists.

The sole study, completed by Prince and Randolph (1981), was focused on interns from clinical and counseling psychology programs.

Prince and Randolph (1981) sent out surveys to 60 clinical and 54 counseling interns from APA accredited programs. Surveys required interns to respond on a Likert-type scale to 38 items related to the emphasis placed on their various roles and functions at both universities and internships. Two discriminant analyses were performed to determine if the groups differed significantly on the roles and functions individuals perceived were emphasized by university and internship trainers. Although subject-to-variable ratio (a major influence on statistical power) was far below what was typically required for discriminant analyses (see Stevens, 1992, p. 277), similarities and differences were noted in the various roles and functions emphasized for clinical and counseling interns by university and internship trainers, according to the perceptions of the interns.

In terms of the differences, both discriminant analyses were highly accurate (correct classifications = 88% and 89%) in classifying clinical and counseling interns on the basis of the roles and functions students perceived as being emphasized by university and internship trainers. Across analyses, some of the roles thought by clinical interns to be more heavily emphasized were assessment/diagnosis, consultation, and administrative/organizational duties. Roles thought by counseling interns to be more heavily emphasized included vocational guidance, aptitude testing, and community outreach. Despite these findings, the authors reported that "there were no significant differences between the two specialties on most (of the) roles studied" (p. 896). In conclusion, because of the limited sample involved in the analyses, any differences appeared to be equivocal at best. Moreover, the roles that helped to discriminate the

groups appeared to overlap conceptually with each other at the global level and with the self-reported roles of newly graduated school psychologists (see Wright, 1988).

There were only two studies available which examined and compared outcomes of clinical, counseling, and school programs (i.e., Gaddy et al., 1995; Rosenfeld et al., 1983). In the more recent study, Gaddy and colleagues, among other things, compared graduates of the three programs on three outcome variables: time spent in various activities, time to degree, and employment settings. The only difference researchers found among graduates was in the activity of providing professional services. In this regard, clinical psychologists reported spending a significantly greater proportion (76%) of time engaged in direct service to clients/patients, than counterparts in counseling (68%) and school (50%) psychology.

Two issues deserve mention. First, graduates across programs did not differ in the amount of time spent on the three other activies (i.e., working on grants, authoring and co-authoring research, and teaching) or on the two other outcome variables. Second, the study did not provide much demographic information and evidenced an unbalanced sample (i.e., 66% from clinical programs, 19% from counseling programs, and 14% from school programs) which hampered generalizability of the findings.

A classic, oft-cited (e.g., D'Amato & Dean, 1989b; Levy, 1984, 1986; Oakland, 1986) study examining and comparing the roles of actual clinical, counseling, school, and industrial/organizational (I/O) psychologists was completed for the Educational Testing Service (ETS) by Rosenfeld et al. (1983). Because I/O psychologists are not involved in this debate by virtue of not competing for psychology internships, these individuals are excluded from this discussion. Based on results of the survey of practicing psychologists

trained in clinical, counseling, and school psychology programs, the authors suggested that "despite differences in their work settings, client populations, nature of problems, and techniques used, licensed psychologists, in general share many common responsibilities and use many of the same knowledges and techniques in their work. (This) study not only confirms that commonalities exist across fields, but helps to pinpoint what these are" (p. IX-1, 2). Commonalities were noted on four role-factors including assessment, intervention, organizational applications, and research and measurement.

According to a careful critique of the ETS study completed by Fitzgerald and Osipow (1986), the findings offered by Rosenfeld et al. (1983) were partially related to methodology, "which consisted of a factor analysis based on responses to a questionnaire assessing knowledge, skills, and abilities...The question remains whether the kinds of interventions used by each specialty differ" (p. 535). In order to address this specific question, Fitzgerald and Osipow (1986) designed a non-comparative study which examined the roles and interventions of counseling psychologists.

The Fitzgerald and Osipow (1986) study was survey-based, evidenced a bi-modal age distribution, and had a representative, albeit limited ($n$ = 351), subject pool. The authors concluded that "counseling psychologists are strongly practice oriented and appear to see themselves as engaged in psychotherapy and traditionally 'clinical' activities with a reduced emphasis on vocational, academic, and research-focused behaviors" (p. 535). The authors also concluded that, like the ETS study, there appeared to be increasing similarity between clinical, counseling, and school psychologists, especially for the younger counseling psychologists. Moreover, authors reported that "there appear to be

few, if any, empirical bases on which to distinguish counseling psychologists from their colleagues in clinical psychology" (p. 543).

Osipow and colleagues (Osipow, Cohen, Jenkins, & Dostal, 1979) also conducted a comparative, survey-based investigation of actual clinical and counseling psychologists' role interests and occupational settings. Although the sample size was small due to categorization ($n$ = 300, but divided into six groups of 50) and the age distribution was negatively skewed, there were distinctions of role interests, but not settings, for clinical and counseling psychologists who did not cross- or dual-identify. Interestingly, Osipow et al.'s study confirmed the fact that many psychologists do indeed cross- and dual-identify as clinical and/or counseling psychologists. Of participants who did not, however, the "pure" clinical psychologists tended to be more interested in therapeutic activities and behavior disorders and were mostly employed in academic settings. Individuals were secondarily employed in agency settings. In contrast, the "pure" counseling psychologists tended to be more interested in general counseling activities, but were also most frequently employed in the academic settings first and agency settings second.

Osipow et al.'s study might be of help in establishing a case for distinctions between actual clinical and counseling psychologists' role interests, but the small sample, age skewedness, and the fact that many psychologists cross- and dual-identified with the opposite branch all conspire to hinder the empirical value of the study. Indeed, logical conclusions drawn from the study further substantiated the fact that the roles and settings of psychologists, regardless of doctoral program type, overlap.

Another comparative, survey-based study of the roles and functions of actual clinical and counseling psychologists came from Tipton (1983). Tipton focused on

trainers (i.e., academicians and intern supervisors) because of the belief that respondents were more perceptive of the roles and functions of current clinical and counseling psychologists than a random sample of practitioners trained in either program type. Sample size was not as much of a problem as in previously mentioned studies because the entire population was surveyed with an approximate 50% return rate. The data, which were consistent with data of previously cited literature, indicated similarities and distinctions between groups in relation to roles and functions and populations served. Although there was general agreement about the typical roles defining professional psychology as a whole, trainers of both clinical and counseling psychologists suggested that the time spent completing each role differed, as did the population served. For example, clinical psychologists were thought to emphasize therapy of longer duration and assessment/diagnosis of psychopathology with a more chronic, disturbed population. On the other hand, counseling psychologists self-reported, and were seen as completing less time-consuming academic, interpersonal and vocational counseling with a relatively normal population. Thus, although general role overlap was perceived, differences in the actual number of hours spent on sets of professional activities and the precise nature of psychological specialists' roles were noted.

Another survey-based comparison of actual clinical and counseling psychologists, which arrived at similar conclusions to Tipton's (1983) findings, was presented by Watkins, Lopez, Campbell, and Himmell (1986). Watkins et al. found similarities and differences in the self-reported identities, roles, orientations, and settings of nearly 500 clinical psychologists and 700 counseling psychologists. Because, little demographic information was provided, sample representation was unclear.

In terms of identities, both types of psychologists clearly preferred to be labeled as practitioners as opposed to academicians. Both engaged in similar roles and viewed themselves as eclectic in theoretical orientation. In contrast, greater percentages of clinical psychologists secondarily ascribed to psychoanalytic orientations and worked in hospital settings, while greater percentages of counseling psychologists secondarily endorsed Rogerian orientations and were employed in university settings. Although some distinctions were noted, the authors concluded that "it appears that clinical and counseling psychology have become increasingly similar over the years, and trends indicated that further convergences between them can be expected" (Watkins, et al., 1986, p. 582).

A non-comparative, survey-based study examining the professional identity of counseling psychologists was completed by Goldschmitt, Tipton, and Wiggins (1981). With approximately twice the number of subjects as the Fitzgerald and Osipow (1986) study, the conclusions are probably more generalizable. Goldschmitt et al. (1981) indicated there is much variability in the roles of counseling psychologists, which often varied as a function of employment setting (e.g., psychiatric and medical hospitals, community mental health center, private practice, etc.). Counseling psychologists employed in more clinically-related settings (e.g., hospitals) reported that individuals spent more time counseling the same clients for longer durations and utilized personality and intelligence tests on more pathological populations. Those employed in more "traditional" counseling settings such as university/academic settings and counseling centers spent more time conducting academic and vocational counseling with more "normal" clients.

In sum, much diversity in terms of settings, techniques, and populations was evident among counseling psychologists. Although the authors concluded that "these findings offer clear support for the existence of a definable counseling specialty within psychology..." (p. 167), the fact that there was so much diversity among counseling psychologists argues against these conclusions, given that both clinical and school psychologists reported working with diverse populations, in many settings, using similar techniques (Crespi & Brennan, 1988; D'Amato & Dean, 1989b; Norcross & Prochaska, 1982; Rosenfeld et al., 1983; Wright, 1988).

This review now addresses outcomes of school psychologists in order to draw conclusions about pre-third-stage similarities of applied psycholgists. Wright (1988) completed a non-comparative survey of newly graduated school psychologists which shed light on actual roles and occupational settings. In turn, findings can be compared to the previously discussed roles of clinical and counseling psychologists. In this survey of approximately 900 school psychologists, five role dimensions (assessment, training, direct intervention, systems intervention, and consultation) were derived. Results are generally consistent with previous role research in school psychology (e.g., Meacham & Peckham, 1978; Smith, 1984) and the roles of clinical and counseling psychologists (Goldschmitt et al., 1981; Norcross & Prochaska, 1982; Rosenfeld et al., 1983). For doctoral level school psychologists, in particular, assessment was the primary role; however, direct intervention, in the form of psychotherapy, was also reported to be a significant role. Settings varied, but included schools, clinics, hospitals, and other long-term facilities. It did not appear from this study that school psychologists differed

significantly from counterparts in terms of roles, time spent on various functions, settings, and populations.

As mentioned above, two studies which focused on comparative performance on the EPPP were located (McGalia & Minder, 1993; Ross et al., 1991). According to the Professional Examination Service (1989), "the EPPP is intended to evaluate the knowledge of the candidate who can be expected to have attained a broad basic knowledge of psychology, regardless of psychological speciality" (p.4). Although many more students from clinical programs than from counseling or school programs take the EPPP annually, means have been compared.

Ross et al. (1991), by virtue of ANOVA comparisons, found statistically significant differences in EPPP scores by speciality type. In this examination of APA accredited programs, clinical program students' mean scores (M=156) were higher than were students from counseling programs (M=150), who in turn evidenced higher scores than students from school programs (M=141). However, standard deviations for clinical (8.26) and counseling (7.35) programs were far less than for school programs (22.00) suggesting greater variability among students from school programs.

In contrast to the results obtained by Ross et al. (1991), McGaha and Minder (1993) found that when comparing the mean EPPP scores for students across APA accredited programs, over a four-year period, students from counseling programs did not outscore students from school programs. However, clinical students continued to statistically significantly outscore students from the other two programs. Despite these findings, the authors suggested that "along the continuum, clinical psychology programs are distinct, counseling psychology programs overlap clinical psychology programs, and

school psychology programs overlap counseling programs" (p.109). Also, given the limitations of the research, the authors called for more research to attempt to discriminate the differences in applied psychology.

In conclusion, despite a lack of direct comparisons, there are similarities and differences between post-third-stage clinical, counseling, and school psychologists. Results from this review, however, provide little support in the way of unequivocal distinctions between intern-level or post-graduate clinical, counseling, and school psychologists. As a result, this reviewer agrees with Matarazzo (1987), that "there is only one psychology, many applications, but no specialties" (p. 902).

Because of these conclusions, it is fair to infer back to the third stage of potential differentiation in pre-internship training between clinical, counseling, and school psychologists and note that the advanced coursework and practica of each specialty do not differentiate applied psychologists at the pre-internship level. If differentiation occurs, it does not happen until the internship experience has concluded. An intern selector might have trouble reliably discriminating applicants from particular training program types if that information was excluded from an application packet. In other words, applicants for internships from clinical, counseling, or school psychology doctoral programs could have very similar application materials for predoctoral psychology internships. Interestingly, even directors of internships speak of minimal differences in the types of training afforded to pre-internship applied psychologists (Phillips, 1981).

## Intern Selection Process

The goal of this section of the literature review is to determine whether there are preferences, by intern selection committee directors and members, for interns of a

particular doctoral program type. Corollary focus will be placed on how preferences vary with rater characteristics and features of settings (i.e., geographic locations and types of sites). Given the conclusion from the previous section that there are equivocal differences at the pre-internship level between the training and outcomes of students from clinical, counseling, and school psychology programs, if preferences based on doctoral program types are discovered, those who select interns may be biased. If a bias is in effect, the present study, which aimed to examine if bias were indeed present, is necessitated. Furthermore, this effort and future efforts would be needed to clarify the precise nature of biases in intern selection.

Two cautions, which are echoed by many (e.g., Gloria & Robinson, 1994; Ross & Altmaier, 1989; Smith, 1968; Tedesco, 1979), are forwarded. The first caution is that most of the research available is non-experimental and survey-based. "These surveys have suffered from variable response rates. In addition, they have been marked by pre-selection bias (e.g., using responses from only one university, or surveys of only APA approved programs)" (Eggert et al., 1987, p. 166). The second caution is that, although there is much research in the way of the internship selection process, there are only a limited number of studies surveying the effect of doctoral program type on intern selection (i.e., Eggert et al., 1987; Kurz et al., 1982; Sturgis et al., 1980). These cautions are especially interesting. "There is no more important task for a clinical service than the selection of interns because they will be colleagues in patient care and, more importantly, a major source of new faculty and staff" (George, Young, & Metz, 1989, p. 480).

A great deal of research has been initiated with regard to the psychology internship, with a particular emphasis on the intern selection process (see Holloway &

Roehlke, 1987 and Ross & Altmaier, 1989 for reviews). In addition to many essays and texts containing practical suggestions intended to reduce confusion for prospective applicants (e.g., Belar & Orgel, 1980; Megargee, 1992), investigators have focused on internship directors (Drummond, Rodolfa, & Smith, 1981; Phillips, 1981; Spitzform & Hamilton, 1976), university trainers (Gloria & Robinson, 1994; Holder & Dodge, 1987; Wolff & Svanum, 1975), and/or interns (Gloria & Robinson, 1994; Ross & Altmaier, 1990; Solway, Huntley, Stedman, Laughlin, Belar, Flynn, & Carrington, 1987) to understand the many perspectives on, and facets of, the selection process. Because this review is most concerned with the attitudes, preferences, and practices of intern selection committee directors and members about the desirable characteristics of prospective interns, focus was placed on the research which sampled these selectors. Secondary emphasis was placed on studies of the other groups that were surveyed about their perceptions of the attitudes, preferences, and practices of intern selectors.

Previous research into the attitudes, preferences, and practices of intern selectors can be categorized into two broad areas: (a) research focusing on the desirable personality characteristics of applicants and (b) research focusing on the desirable professional characteristics of applicants. The personality characteristics of prospective interns include emotional, intellectual, and social variables. The professional characteristics, which have been studied more extensively, include prerequisite skills, APA accreditation status, institutional affiliation, and, most important in this discussion, doctoral program type. Often, research in these areas has had intern training directors rank order various characteristics in selection decisions. Because studies have been completed across a space of approximately 20 years, trends have emerged.

## Intern Rating Process

Personality and professional characteristics of interns are examined by selectors through reviews of application materials, interviews, and other personal contacts. Both personality and professional characteristics are viewed by the selectors when individuals rate the applicant's viability for employment. Personnel psychology and clinical judgment research provided evidence that this rating is influenced by characteristics of the rater and the site with which the individual is associated (Ross & Altmaier, 1989) and that raters are susceptible to making cognitive errors (Sleek, 1996). An example of type of rater bias follows: rater A may have a similar cultural background to applicant A, who had a relatively less developed curriculum vitae than applicant B. As a result, despite the disparate professional characteristics, rater A may tend to rank applicant A higher than applicant B on the basis of personal information. An illustration of one form of site bias is now presented. Rater A, who is associated with a prestigious medical setting, is influenced to choose applicant C with more prestigious institutional affiliation than applicant D, regardless of other characteristics, because of the site prestige. No matter how well suited applicant D might be, the training institution was less prestigious and thus less desirable; therefore, the applicant is not offered the position.

Stedman, Costello, Gaines, Schoenfeld, Loucks, and Burstein (1981) were so intrigued by the actual decision-making process for the selection of interns that the authors designed a study which examined it. In the study, researchers recorded two intern selectors' ratings of 18 applicants on six criteria including transcripts, graduate program, letters of reference (two), adult experience, child experience, and a global rating (p. 415). The ratings on the six criteria were subjected to a principal-components analysis and

three factors emerged: academic preparation (AP: graduate program and transcript); clinical experience (CE: adult and child practicum training); and letters of reference (LR: two letters). Next, to examine how each selector arrived a decision, a path analysis was performed using all three factors and the global rating (GR) as exogenous variables and final ranking (FR) as the endogenous variable. Following the analysis, the authors determined that the first selector based the decision heavily on the GR, while the second selector "apparently reconsidered both CE and LR immediately prior to making final ratings" (p. 419). The selectors also differed in "linking (of) the academic preparation factor with global ratings. One created an indirect path via letters of reference; the other ignored letters of reference completely and linked academic preparation and global ratings directly" (p. 419). In sum, the researchers concluded that selectors differed in the decision-making process.

There is much variability among individual raters in the decision-making process. Because of the great diversity in raters, sites, and applicants, the possibilities for subjectivity and bias are endless. However, raters can be grouped to explore rating styles, as will be discussed later. Styles are affected by the principle of supply and demand. If interns outnumber positions, the rating process described above could be affected differently than if the inverse was true.

## Supply and Demand

Supply and demand in the internship marketplace have been examined by many researchers (Drummond et al., 1981; Gloria & Robinson, 1994; Silver, Miller, MacDonald, & Lee, 1981; Stedman, Costello, Gaines, Solway, Zimet, & Carrington, 1991; Tuma and Cerny, 1976). Applicants for internships come from APA and non-APA

accredited Ph.D. programs in clinical, counseling, and school psychology. Also applicants originate from programs which combine specialties or programs that award Psy.Ds. Of the 288 APA accredited doctoral programs in applied psychology, 176 are clinical, 64 are counseling, 43 are school, and five are various combinations of these types (APA, 1994). Therefore, clinical applicants outnumber other applicants by large ratios.

Tuma and Cerny (1976) summarized the years 1971 to 1975 and presented forecasts for the years 1976 to 1978. Based on data from 1971 to 1975, the authors indicated that, excluding 1971-1972, gross supply of positions did not meet gross demand by an approximate 5% discrepancy. They forecasted an even larger discrepancy (14%) by the year 1978-1979. Wolff and Svanum's (1975) investigation of the internship marketplace during the year 1973-1974 concurred with Tuma and Cerny's findings. In contrast, Silver et al. (1981) provided contradictory evidence of an oversupply of positions for the year 1980-1981. More recently, Stedman et al. (1991) determined that the issue of supply and demand "depended on one's viewpoint" (p. 19). In an overall sense, though, supply and demand were fairly equal. However, a different finding occurred when one considered the "match between the preferred internships (APA accredited) and the preferred students (those from APA accredited clinical and counseling programs). If one assumes that the preferred students are those from APA accredited, traditional clinical and APA accredited counseling programs, then one finds a large shortfall (of interns to positions)" (p. 19).

Because the applicant pool now consists of applicants from additional types of doctoral programs, the shortfall discussed by Stedman et al. is no longer accurate. The

latest figures, provided by Gloria and Robinson (1994) and APPIC (1995), revealed there is an unbalanced ratio of interns to positions. Over 200 applicants did not receive positions in 1995 and that figure doubled in 1996 (Murray, 1996).

There are many theories for the recent unbalanced ratio. One director of an APA accredited internship site (Jay S. Zimmerman, personal communication, April 19, 1995) suggested there were four main reasons receiving the most attention. Reasons for the imbalance, in no particular order, were that: (a) the number of doctoral students was increasing more rapidly than the number of internships, especially ones that were APA accredited; (b) doctoral students from a greater variety of programs were seeking APA accredited internships due to newly incorporated program requirements; (c) many applicants were unable or unwilling to move geographical locations to secure internship offers; and (d) a tremendous influx of applicants from professional psychology programs, as opposed to traditional scientist-practitioner programs, occurred.

Some steps have been proposed to counteract the problem of an unbalanced intern marketplace. In particular, one move has been for APA accredited sites to first make offers to APA accredited applicants so that, at minimum, students from APA accredited doctoral programs are assured positions. This counteractive step does not address the problem, but avoids it. It would be better to create enough positions to meet the demand. However, with the onset of managed health care, federal, state, and local economic cutbacks, and other related financial restrictions, the situation will probably continue to worsen.

In summary, supply and demand have varied over the last three decades, but an imbalance is now apparent. Applicants have outnumbered positions for about five years,

and explanations for this occurrence vary. Financial restraints are currently hindering the development of more positions. In relation to this study, a shortage of positions creates difficulty for all applicants, especially those of least preference. In addition, bias could further worsen matters for potentially qualified applicants.

**Intern Selection Committee Directors and Members**

According to Holloway and Roehlke (1987), internship directors "set the overall climate, attitudes, and standards for the training program" (p. 215). Unfortunately, there is not much information available about these directors. It is known from the APPIC directory (Krieshok et al., 1994) and from a recent survey study (Gloria, Rangel, Choi-Pearson, & Castillo, 1995) however, that directors are mostly doctors of philosophy (Ph.D.), and approximately 60% are male. The most recent studies involving directors' psychological orientations indicated that directors are 55-57% eclectic and 22-28% psychoanalytic, with cognitive/behavioral and other orientations receiving less, but increasing. endorsement (Kurz, Fuchs, Dabek, Kurtz, & Helfrich, 1982; Spitzform & Hamilton, 1976). Finally, 88% of directors reported a general agreement among committee members in relation to the weighting of various selection criteria (Spitzform & Hamilton, 1976).

Information is also available about the committee members, most of whom are APA members. For example, the size and nature of committees vary depending on whether the site is APA accredited (Drummond et al., 1981). In terms of size and nature, committees at accredited sites consisted of an average of six to seven members, five of whom are male. Committees at nonaccredited sites were typically made up of four

members, three of whom were male (Drummond et al., 1981; Spitzform & Hamilton, 1976).

In relation to actual agreement levels on applicant ratings and selection criteria among members of the same committee, two studies have been conducted. In the first, Plutchik, Klein, and Contes (1970) found moderate levels of agreement among one committee's members' ratings of applicants on the Psychology Intern Rating Scale (PIRS). The correlations of total scores among members averaged $r = .50$; however, no preliminary training was provided to raters. In the second study, Spitzform and Hamilton (1976) examined agreement in the weighting of selection criteria by 10 randomly selected committees from accredited sites. The authors found overall mean correlations ranging from $r = .41$ to $r = .85$, suggesting a moderate rate of agreement (p. 409).

In sum, although there is some doubt about the consistency of ratings of interns and the weighting of selection criteria by selection committee members, general trends exist. In spite of these trends, it is clear that the selection process is affected by subjectivity. Therefore a need for greater objectivity on behalf of raters, both individually and collectively is warranted (Ross & Altmaier, 1989; Suran, Crivolio, & Kupst, 1977). In relation to this study, it can be stated that a subjective selection process allows for more bias.

## Internship Sites

The most recent information about types of internship sites came from the 1994-1995 APPIC directory (Krieshok et al., 1994). The directory provided much information, including the number of sites within each respective type, accreditation status, and location. Sites were categorized into 11 major types including Veterans Administration

medical centers (VAMCs), medical schools, private general hospitals, private psychiatric hospitals, children's facilities, state and/or city hospitals, community mental health centers (CMHCs), military institutions, university counseling centers (UCCs), consortia, and others. The "others" type included sites which are not represented many times or those that were multiclassified.

In the directory, sites were described on the basis of APA accreditation status, which can be either fully accredited, provisionally accredited, on probationary accreditation status, or nonaccredited. Of the 535 total sites, 416 were accredited in some form and 119 were not. All the military institutions and VAMCs were accredited, while the other types, excluding the "other" type, were predominantly accredited. It appears that there were long-lasting trends for accredited sites to prefer and accept a higher percentage of applicants from accredited programs (Drummond, Rodolfa, & Smith, 1981; Tuma & Cerny, 1976).

Site locations were divided into 10 regions: Northeast, Mid-Atlantic, Southeast, Eastern Midwest, Western Midwest, South Central, Near Northwest, Near Southwest, Far West, and Foreign. Sites are also located in Hawaii and Puerto Rico. According to Eggert et al. (1987), the region with the most sites was the Mid-Atlantic ($n = 57$), with Far West ($n = 39$), Eastern Midwest ($n = 34$), and Northeast ($n = 33$), second through fourth respectively. The Near Northwest ($n = 0$), Foreign ($n = 1$), and South Central ($n = 18$) are presented in ascending order. These numbers, which probably have changed over the past decade, were generally accurate across accredited and nonaccredited sites.

Although there are no major outliers (low or high) in the distribution, the types with the most overall sites are UCCs ($n = 87$), with medical schools ($n = 77$), VAMCs

(n = 69), and CMHCs (n = 61), second, third and fourth respectively. The types with the fewest sites were military institutions (n = 9), private psychiatric hospitals (n = 17), and consortiums and others (both n = 35). It was noteworthy that over the last three decades the number of sites had been steadily growing, and the proportion of each type to the total had been evolving. Indeed, Stedman et al. (1991) revealed that site types evidencing the most growth were primarily medical schools, private general hospitals, private psychiatric hospitals, state/county hospitals, and UCCs. The remaining types have stabilized, or in the case of consortia, significantly decreased (p. 9). However, these trends seem to be reversing (Murray, 1996).

It is worth mentioning that each site type served different populations, and, therefore, may have sought interns with particular characteristics. Thus, the type of site may impact the selectors' ratings of applicants. To illustrate from what can be gathered from the APPIC directory (Krieshok et al., 1994) and the research literature (e.g., Holloway & Roehlke, 1987), it appears that medical schools, VAMC's, and hospitals accept primarily clinical psychology students, while counseling psychology students are desirable to UCCs and CMHCs, as well as VAMCs. These preferences may have existed for a variety of reasons. However, as was discussed in a previous section, the traditional classifications and resulting preferences based on psychological specialty may be based on a false heuristic.

Indeed, "clinical psychologists consult in schools and are employed in UCCs; counseling psychologists work in hospitals and mental health centers; and school psychologists work in forensic settings and drug treatment programs" (Cameron, Galassi, Birk, & Waggener, 1989). Irrespective of these comments, little data are available from

which trends can be seen. In fact, only one empirical study (Tipton, Watkins, & Ritz, 1991) that addressed the preferences of directors from particular site types could be located. This study, however, was not focused on specialty types. Instead, the authors investigated the basic prerequisite skills valued by intern directors from differing site types.

To examine and compare internship directors' preferences of the eight most proportionally represented site types, Tipton et al. (1991) sent out a modified version of Rosenfeld et al.'s (1983) questionnaire. The authors sought to measure the basic prerequisite skills (BPS) desired by intern directors from these eight site types. The questionnaire was sent to all internship directors, and a 74% response rate was achieved. Nine BPS factors emerged and mean factor scores were computed for each site type. Then, these scores were compared across site types. Some of the more important factors included: (a) psychological assessment, (b) vocational counseling, (c) behavioral approaches, (d) therapeutic skills, (e) academic career skills, (f) understanding of psychological processes, and (g) psychodiagnosis.

Overall, Tipton et al. found both similarities and differences across site types in regard to the desirability of certain BPS factors in prospective interns. The most important BPS across site types was the understanding of psychological processes, because this factor implies that a prospective intern has an "understanding of normal development as well as psychopathology" (p. 63). On the other factors, most sites were in general agreement; however, internship directors from UCCs tended to stand out in the BPSs they desired. For example, except for UCCs, all site types rated psychological assessment as very important, and to a lesser extent the same was true for

psychodiagnosis. In contrast, while all site types rated therapeutic skills as desirable, UCCs stood out in their emphasis of this BPS. Also, not surprisingly, UCCs were the sole site type to rate vocational counseling as important.

A fair conclusion for this section is that directors from particular site types desire interns with particular characteristics. Some of these characteristics may include accreditation status of doctoral program, doctoral program type, and/or level of basic prerequisite skills. Despite some general similarity in desired prerequisite skills across site types, one site type (UCCs) stood out.

## Personality Characteristics

Little is known about the desirable personality characteristics of intern applicants. In fact, only one study (Plutchik et al., 1970) has focused on the differing importance of certain personality characteristics on the selection process. Other researchers (Kurz et al., 1982; Spitzform & Hamilton, 1976; Sturgis et al., 1980; Suran et al., 1977) examined personality characteristics in conjunction with professional characteristics to determine their relative importance in selection. This section begins with the latter studies, which provide background into the global importance of personality characteristics, and then follows with a discussion of the findings of Plutchik et al. (1977), who developed the PIRS.

Spitzform and Hamilton (1976) and Kurz et al. (1982) asked internship directors from accredited sites only and accredited and nonaccredited sites together to rank order selection criteria. These criteria dealt primarily with the relative importance of certain training characteristics, but also included items specifying personal interview and/or personal and professional goals. The researchers concluded that the personal interview

and personal and professional goals were relatively important selection criteria for directors from both accredited and nonaccredited sites. However, it was acknowledged by Spitzform and Hamilton that only 66% of directors required a personal interview.

Sturgis et al. (1980) approached the question of selection criteria differently. The authors asked 118 internship directors from accredited and nonaccredited sites to list, in order of importance, the criteria used to judge applicant viability. Then, the researchers gave points to the top three criteria from each director. Several clusters of criteria emerged and were ranked in terms of total points. The cluster labelled "personality factors" was rated the fifth highest among many clusters, providing further evidence that selectors of interns incorporate personality characteristics in ratings of applicants, but that these factors are generally of less importance than other factors.

Suran et al. (1977) also examined the importance of personality characteristics on selection. In the study, five selectors rated 45 applicants in four areas and gave applicants a total score. These areas included clinical experience, scholarly productivity, letters of recommendation, and intangibles. Next, variation in the total scores was examined through multiple regression with the four area scores used as predictors of the total score. Of most import to this section is the explanatory/predictive power of the "intangibles" factor, because it includes internship directors' ratings of the applicants' "apparent personality characteristics" among other qualities. In agreement with previous researchers who determined that personality characteristics are not very important selection criteria, the intangibles factor turned out to have the least predictive power of the four factors, based upon the zero-order correlations. This suggested that the variation in applicant viability ratings is better explained by factors other than personality characteristics.

In sum, this section reveals that there is some variation in the overall importance that intern selectors place on personality characteristics. This is not surprising, given that many sites do not even require personal interviews. Those that do, however, seem to value the knowledge of interns' personal goals and personality characteristics. To examine exactly which of these personality characteristics are valued by intern selectors, Plutchik et al. (1970) conducted an investigation based on the Psychology Intern Rating Scale (PIRS).

The PIRS items were written by intern selectors to help objectively separate more desirable and qualified applicants from those less so. The 21 Likert-type items addressed qualities such as personal appearance, mood, likableness, openness, self-awareness, independence, etc. Following interviews with two to four intern supervisors, 60 applicants were rated on the PIRS.

After selection, item means of accepted and alternate applicants were combined and compared with item means of applicants that were rejected. The items which best discriminated between the two groups were, in order, tendency to complain, sensitivity to others, ability to work with staff, and independence. Other discriminating items included intellectual grasp of psychology and general range of knowledge. Some items that failed to discriminate between groups were personal appearance, mannerisms, speech patterns, mood, and leadership potential.

Based on the findings, it can be concluded that appropriate social facility and intellectual prowess were two highly valued personality characteristics by intern selectors. Also, however, it can be concluded that many personal characteristics are not significantly different for applicants who are accepted, made alternates, or rejected.

Finally, Plutchik et al. not only demonstrated how subjective the intern selection process can be, but how difficult it was to discriminate successful and unsuccessful applicants on the basis of personal characteristics. Thus, it is, perhaps, an intern's training characteristics, such as institutional affiliation, doctoral program type, or letters of reference, which help selectors determine which applicants to rate more appreciably.

**Professional Characteristics**

An examination of the intern selection literature reveals considerably more research regarding the weighting of various professional characteristics than personality characteristics. Indeed, several researchers directly addressed the issue from the standpoint of actual selectors (Drummond et al., 1981; Lopez, Moberly, & Dehlert, 1995; Petzel & Berndt; 1980; Spitzform & Hamilton, 1976; Sturgis et al., 1980; Suran et al., 1977). Cole, Kolko, and Craddick (1981) even examined actual interns' perceptions of what criteria the authors believed selectors utilized leading to offers of employment. Much of the research is consistent over time in terms of results and, thus over time, can be thought to be generalizable to current day weighting of various criteria. Before these criteria and weighting are addressed, one point needs to be mentioned. Although doctoral program type is a professional characteristic which is used as a criterion for selection, it is not discussed until the next section of this literature review. This is because none of the studies directly included program type as a selection criteria to be weighted, perhaps because less concern was placed on its importance in the past when fewer applicants from divergent programs were seeking clinical internships.

The first authors to address the weighting of various training characteristics on selection were Spitzform and Hamilton (1976), who surveyed accredited internship

directors. To determine what percent of sites used each criterion, the researchers, who achieved an 84% response rate, asked internship directors to report which of 15 already provided criteria they used. Directors were also asked to rank order the importance of these criteria. Criteria provided to the directors, listed in descending order of usage, included: (a) letters of recommendation, (b) experience in clinical practicum, (c) personal/professional goals, (d) graduate institution affiliation, (e) prior work experience, (f) specific course work, (g) minority group status, (h) graduate grade point average, (i) personal interview, (j) theoretical orientation, (k) honors/awards, (l) research in progress, (m) publications and presentations, (n) professional memberships, and (o) state residency. The range of usage percentages, which gradually decreased for the most part and severely dropped off from publications and presentations (54%) to professional memberships (28%), was 100% to 10%.

Although not every site utilized all 15 criteria, letters of recommendation, experience in clinical practicum, professional and personal goals, specific coursework, and prior work experience were most important overall. Least important criteria, in ascending order, were professional memberships, publications and presentations, research in progress, and honors/awards. Rankings were also examined across sites with different predominant orientations (i.e., psychoanalytic, humanistic, behavioral, eclectic, and "other"). Although there was general consistency in rankings across orientations which mirrored the overall rankings, psychoanalytic and behavioral sites seemed to be more interested in personal interviews and prior work experiences respectively. Also, both ranked institutional affiliation (i.e., university prestige) relatively higher than the other types of sites.

Findings that were generally consistent with the Spitzform and Hamilton (1976) study were obtained by Suran et al. (1977), Sturgis et al. (1980), and Petzel and Berndt (1980). Intriguingly, all four studies varied in the way researchers measured, and/or weighted, criteria, and in sample size and representativeness. For example, Suran et al. only surveyed five raters at one site. In contrast, the sample in the Sturgis et al. study consisted of 43% of the directors of all sites ($n$ = 167), including directors that were from accredited and nonaccredited sites, and the sample in the Petzel and Berndt study included 75% of the directors ($n$ = 90) of accredited sites. Although all three studies found that clinical experience, academic credentials, and letters of recommendation were very important selection criteria, only the Suran et al. study provided evidence that scholarly productivity was important. This discrepant finding is thought to be due to the study's small sample.

Two other findings are noteworthy. First, Petzel and Berndt (1980) determined that prestige of an academic institution was a relatively important selection criteria. Second, as noted above, Sturgis et al. (1980) found that accreditation status of an applicant's doctoral program mattered to intern selectors. Because there remained some confusion as to whether selectors from accredited and nonaccredited sites differed in rankings of selection criteria, Drummond et al. (1981) conducted a survey that compared these two groups of selectors' rankings of various selection criteria.

The sample in Drummond et al.'s (1981) survey was highly representative of the number of directors from both accredited (86%) and nonaccredited (82%) sites. Although, in a general sense, there was much overlap in the criteria valued by directors from accredited and nonaccredited sites, some differences emerged. In terms of similarities,

letters of recommendation and practicum experience were most important, and graduate record examination (GRE) scores were least important. Both groups also agreed that "clinical" coursework was more important than "counseling" coursework, but no definition of the difference between the two types of coursework was provided. Finally, selectors from accredited sites valued scholarly productivity and departmental support of application more than selectors from nonaccredited sites, who placed a higher level of importance on knowledge of structured assessment techniques.

The most recent study examining the relative importance of selection criteria was conducted by Lopez and colleagues (1995), who sampled 50% ($n$ = 208) of the 416 APA accredited internship training directors from the 1993-1994 APPIC Directory. The training directors were asked to rank order many different selection criteria. Mean rank scores and number of endorsements were compared and the following results obtained: the three most important selection criteria were clinical experience, personal interview, and letters of recommendation.

Generally consistent with previous studies reviewed, Lopez et al. found the increasing importance of the interview. One other finding of note was that the criterion relating to academic prestige of the applicant's program was the 14th highest selection criterion, indicating that if doctoral program type is highly related to academic prestige, then it should not be a very important factor in selection.

A study related to this discussion comes from Cole et al. (1981), who examined actual interns' perceptions about what criteria they believed were important to selectors in their decisions. Despite some declared uncertainty on behalf of the interns, which was expected by the authors, 60 interns reported that there were criteria having both a major

and minor influence on their being offered employment. The major influences were letters of recommendation and personal interviews, and the minor influences were practicum and previous work experiences. Only interns from behaviorally-oriented sites believed that scholarly productivity was of consequence. It is apparent that interns have a good understanding of the criteria on which selectors base rankings.

In conclusion, trends emerged when examining the selection criteria valued by intern selectors from accredited and nonaccredited internship sites. Across studies, the criteria that are most important for selectors from both accredited and nonaccredited sites are clinical experience and skills (i.e., assessment/diagnosis and therapy), letters of recommendation, and personal/professional goals. Personal interviews are also often highly valued at sites for which interviews are required, especially at psychoanalytic sites. On the other hand, performance on GREs is the least important criteria overall, and scholarly productivity (i.e., publications/presentations) is valued less by selectors affiliated with Non-APA accredited sites. Minimal differences are noted when the criteria are examined across sites which ascribe to particular psychological orientations.

This section has shed light on the weighting of various training characteristics which were, and probably still are, of importance to intern selectors. If applicants from different training programs (i.e., clinical, counseling, and school psychology) are equalized on all personality and professional-related criteria, variability in ratings by intern selectors would have to be explained by effect of program type.

## Doctoral Program Type

There are numerous factors considered in the selection of psychology interns, some of which are consistently rated as more important, and others as less important. At

times, these ratings have appeared to depend on rater characteristics and features of the site. One criterion that has received attention is doctoral program type. Essentially, researchers have sought to determine the likelihood that internship programs would consider applicants from accredited and nonaccredited doctoral programs in clinical, counseling, or school psychology. Also, a limited number of studies investigated actual acceptance rates of applicants from doctoral programs. Although this research is descriptive and non-experimental, it is valuable as an aid to understanding the doctoral program type(s) most desirable to intern selectors.

The earliest figures about preferences based on program type come from Sturgis et al. (1980) who surveyed 167 internship directors from accredited and nonaccredited sites for 1977-1978. The researchers found that within each doctoral program type (i.e., clinical, counseling, and school), applicants from accredited programs were more frequently considered; however, there was a significant difference in the percentages of applicants considered across program types. Applicants from accredited clinical programs were considered by the largest percentage of sites (99%). Applicants from nonaccredited clinical programs (67%) and accredited counseling programs (67%) were tied for second. The third and fourth largest percentages of applicants considered came from nonaccredited counseling programs (40%) and from accredited school programs (20%). Although no information was provided regarding the percentage of nonaccredited school applicants considered for employment, based on the other data, one might surmise it would have been the lowest of the six groups.

Two other studies, Eggert et al. (1987) and Kurz et al. (1982), also examined the types of doctoral programs from which intern applications would be considered. Both

generally agreed with the findings of Sturgis et al. (1980). Kurz et al., using a sample based on the 1979-1980 APPIC directory, demonstrated that applicants from clinical programs received the largest percentage of consideration (99.6% and 69.8% for accredited and nonaccredited). The second largest percentage of applicants considered came from counseling programs (66.4% and 41.1% for accredited and nonaccredited) and the lowest percentage of consideration was for applicants from school programs (24% and 14.1% for accredited and nonaccredited).

Eggert and others (1987), using the 1984-1985 APPIC directory, generally agreed with the preceding two studies and had only minor differences with Kurz et al. (1982). Some noteworthy trends were evidenced. One different trend was a decrease in consideration rates for applicants from nonaccredited programs. These decreases, which occurred across program types, ranged from -3.6% (counseling; 41.1 to 37.5%) to -9.2% (clinical; 69.8% to 60.6%). Although the rates for accredited counseling programs increased from 66.4% to 74.7%, a decrease from 24% to 16.3% was noted for applicants from accredited school programs. Finally, no change was noted for applicants from accredited clinical programs (99.5%). Although the order of consideration (i.e., clinical>counseling>school) remained the same, the gap between the three program types grew. Also, applicants from nonaccredited programs were becoming less likely to be considered for positions.

Holloway and Roehlke (1987) reviewed data related to consideration rates for accredited and nonaccredited clinical and counseling applicants from the 1986-1987 APIC directory. When combined with Holder and Dodge's (1987) study of internship programs that considered applicants from accredited school programs, a clear picture of

the year 1986-1987 emerged. The proportion of sites which considered applicants from nonaccredited sites continued to decrease even more sharply. For example, from 1984-1985 to 1986-1987, the percentage of programs considering applicants from nonaccredited clinical programs decreased 16.6% (60.6% to 44%) and from nonaccredited counseling programs 12.7% (37.5% to 24.8%). Additionally, a decrease in the percentage of sites considering accredited school applicants was evident (16.3% to 12%). When taking into account the fact that these percentages are only consideration rates, and thus do not reflect patterns of offers, the likelihood that school applicants can gain internship employment during a period of unbalanced supply and demand (see for e.g., Gloria & Robinson, 1994) becomes slim.

The preceding discussion has focused on consideration rates, but not preference or acceptance rates. Only one study has examined preference rates (Rodolfa, Smith, and Drummond, 1980), while others have addressed acceptance rates (Phillips, 1981; Solway et al., 1987; Sturgis et al., 1980). Rodolfa et al., in a study that examined the accredited internships available to the nonaccredited applicant, surveyed internship directors from accredited sites and received an 86% return rate. Internship directors were asked to categorize the nature of preference for applicants from nonaccredited programs. Categories included: (a) clinical applicants only, (b) strong clinical preference, (c) slight clinical preference, (d) equal preference for clinical and counseling, and (e) counseling preference.

Of the 114 directors who responded, 79 considered applicants from nonaccredited programs. Preference rates were as follows: 43 preferred clinical applicants (most of which only considered clinical applicants), 32 had equal preferences, and four preferred

counseling applicants. Although the authors concluded that "there appears to be a growing non-partisan acceptance of psychological applicants" (p. 77), another way of interpreting results is that, among directors of accredited sites who consider applicants from nonaccredited doctoral programs, clinical applicants are preferred more than counseling applicants. Unfortunately, Rodolfa and colleagues did not include school applicants in the study; thus, relative ranking can only be inferred from previous studies. A fair inference is that school applicants would have been even less preferred than clinical and counseling counterparts.

Upon viewing actual acceptance rates, the importance of doctoral program type on selection becomes more vivid. Sturgis et al. (1980) found that of accredited sites, 96% had at least one clinical intern. In contrast, only 23% had at least one counseling intern. Additionally, these figures were similar proportionally for nonaccredited sites. Again, data about the acceptance of school applicants was not presented, and, as a result, conclusions can only be inferred.

However, a study on the acceptance rates of school applicants was located (Phillips, 1981). Phillips found that of 100 accredited and nonaccredited school applicants for clinical internships, only 15 were accepted during the year 1979-1980. Of those 15, eight were from nonaccredited doctoral programs. Taken in conjunction with the results previously discussed, one can conclude that school psychology applicants are the least likely to secure internship positions. In other words, there appears to be a tangible preference, on behalf of intern selectors, for clinical applicants first, counseling applicants second, and school applicants third, regardless of the accreditation status of doctoral program.

Another point in the argument regarding clinical applicants' preferred selection is that there are significantly more applicants from clinical programs than from counseling and/or school programs. However, it appears that the proportion of clinical applicants that are offered positions is much greater than the proportions of counseling or school applicants (Phillips, 1981; Sturgis et al., 1980).

In summary, it is clear that intern selectors consider, prefer, and employ applicants from clinical psychology programs first. Applicants from counseling and school psychology programs are of second and third preference respectively. Although these trends are true regardless of the accreditation status of the applicant's doctoral program, APA accreditation clearly improves applicants' likelihood of gaining employment. Importantly, though, because these studies are descriptive and do not address exactly what factors, alone and in combination, influence intern selectors ratings, experimental investigations are necessary for clarification.

## Summary

The purpose of this literature review has been to demonstrate that: (a) pre-internship clinical, counseling, and school psychology applicants can have virtually identical application materials for predoctoral psychology internships and (b) preferences by interns selectors appear to exist. These preferences appear to vary with rater characteristics and features of the sites. Overall, though, it seems that applicants from clinical psychology programs are preferred first, counseling psychology programs second, and school programs third. Because there do not appear to be marked differences between the applicants from each program type, and certain applicants are preferred by most intern selectors, applicants are not being rated solely on their actual

accomplishments but instead on the relative status of their doctoral program type. Given that discrimination is defined as "specific behaviors toward members of a group which are unfair in comparison with behavior toward members of other groups" (Deaux & Wrightsman, 1984, p. 254), one suspects there is a form of discrimination at work in the selection process. Unfortunately, this claim can not be refuted or substantiated from the body of knowledge related to the intern selection process, because the entire body of knowledge is descriptive, survey-based, and non-experimental. This study was the first to incorporate experimental methodology, specifically analogue techniques, to examine the intern selection process. In particular, the effect of doctoral type on intern selection was examined.

# CHAPTER III

# METHODOLOGY

## Overview

There are no experimental data about possible biases in the selection of predoctoral interns for psychology internships. Because doctoral program type (i.e., clinical, counseling, or school psychology) was hypothesized to affect acceptability for internship ratings, this experiment was designed to test the hypothesis that doctoral program type has an effect on acceptance for a predoctoral psychology internship. Specifically, it was hypothesized that prospective interns from clinical psychology programs would be more acceptable than those from counseling psychology programs, who would, in turn, be more acceptable than those from school psychology programs. This would be the case even if applicant credentials were identical.

The research design is similar to that of Walster et al. (1968), who investigated the effects of race and sex on college admission. The entire sample of 535 APPIC internship sites was randomly divided into three sections of 178 with each third receiving applications -- identical except for doctoral program type -- from a particular discipline (clinical, counseling, or school psychology). One site was randomly discarded. One intern selection committee director or committee member from each site was asked to review the set of application materials and rate how acceptable that applicant was for employment. Demographic and self-descriptive information, not already available in the APPIC directory, was also requested on the questionnaire. Whether the application was

accepted, held, or rejected was the dependent variable. The differences in applicant acceptability, if they emerged, were thought to be caused by doctoral program type, because other relevant factors were controlled. Next, particular attributes of raters (i.e., gender and doctoral program type attended) and settings (i.e., location, type, population density in the site's locale, and socioeconomic status of the site's primary clientele) were analyzed to further pinpoint the selector and site characteristics associated with the bias.

## Research Participants

### Source of Potential Respondents

Subjects for this study were either the internship director or an intern selection committee member from each of the 534 predoctoral psychology internship programs listed in the APPIC directory (Krieshok et al., 1994). "This directory, published annually since 1972, provides information about internship programs that are affiliated with APPIC, including location, number of full-time and part-time interns, stipend levels, types of major supervised training experiences, APA accreditation status, and types of academic programs from which applicants are considered" (Eggert et al., 1987, p. 166).

## Instrumentation/Measurement Procedures

### Questionnaire Preparation

Dillman's (1978) oft-cited suggestions for questionnaire preparation, which were empirically supported by meta-analytic research (Fox, Crask, & Kim, 1988; Yammarino, Skinner, & Childers, 1991), were followed before the final edition of the application packet and demographic questionnaire were photocopied on white paper and folded into a booklet (see Appendices B-E for a full sized version). These suggestions specified that attention be placed on booklet formatting, printing procedures, ordering and wording of

questions, formulating of pages, and designing of the front and back covers. Modifications of Dillman's suggestions took into account modern photocopying practices, the population's characteristics, and the fact that some of the materials within the booklet were application materials and not entirely questionnaire-related.

The first mailing included a cover page with heading, descriptive paragraphs, return address, invitation for extra comments, and a repeated pledge to mail a debriefing summary and results if requested (see Appendix A), and a survey booklet. The booklet included a page of instructions (see Appendix B), a prospective intern's application materials (see Appendix C), a demographic questionnaire (see Appendix D), and a back cover with space for written feedback (see Appendix E). Otherwise **identical**, in each of the application packets it was specified in two places that the prospective intern was from a clinical, counseling, or school psychology doctoral program.

### Application Packet

The application packet was developed following a review of over 50 application forms from APPIC predoctoral internships. Also, the packet was generally in line with Megargee's (1992) sample curriculum vitae to be used for psychology internship applications. A crucial consideration for the application packet was that it could potentially represent a prospective intern from either a clinical, counseling, or school psychology doctoral program.

### Demographic Questionnaire

The demographic questions were developed to obtain relevant information that was not available elsewhere (i.e., in the APPIC directory) about directors of predoctoral clinical psychology internships and their settings. In addition to a single question about

the acceptability of the prospective intern for employment, this questionnaire requested information related to the professional and internship setting.

## Piloting Procedures

Before any directors of clinical internships or internship selection committee members were surveyed, two piloting procedures occurred. These procedures included investigations of the cover letter, the application packet, and the demographic questionnaire to determine if the instructions were clear, the print readable, and the completion time brief. Also, face and content validity were of concern. Specifically, the application materials were examined to see if they could be representative of either a prospective predoctoral clinical, counseling, or school psychology intern.

During the initial piloting work, both the application packet and the demographic questionnaire were distributed to over 30 graduate students and faculty members in APA accredited counseling and school psychology programs at Ball State University in Muncie, Indiana. These respondents commented on the clarity of instructions, face validity, time demands, graphic design, cover letter, application materials, and demographic question content.

The second pilot involved several second- and third-year counseling and school psychology pre-internship doctoral students. Both the application packet and the demographic questionnaire had been pared in content and length by this time. Students acknowledged that the instructions were precise, the print readable, and that completion time was approximately 12 minutes. Additionally, face and content validity appeared to be present.

## Research Design

A post-test only, control group true experimental design was used. Application materials identical in all respects, except for the doctoral program type, were randomly sent in equal numbers to clinical internship sites. Each third of the materials showed the applicants to be from accredited clinical, counseling, or school psychology programs respectively. The frequencies with which the various applicants were accepted, held, or rejected was the dependent variable.

Essentially, though, there were two major research questions addressed in this study. First, the effect of doctoral program type (i.e., clinical, counseling, or school) on acceptance (i.e., accept, hold, or reject) for predoctoral psychology internship was examined. The second question required post-hoc analysis to determine which demographic variables were associated with the differences. The major difference between the first and second research questions was the maximum number of observations in each cell.

### Threats to Internal and External Validity

In true experiments, internal validity, which "refers to the degree to which a study rules out explanations for the study's findings other than the one claimed by the researcher" (Slavin, 1984, p. 12), is most easily attained (Keith, 1988) because two conditions are met. According to Smith and Glass (1987), these two conditions are "that the researcher deliberately introduces and manipulates and the researcher's control extends to the ability to assign subjects at random to the levels of the independent variable" (p. 136). In this study, the manipulation of the doctoral program type and the randomization of booklets to raters suggested that threats to internal validity were

minimized. Indeed, a review of the classic threats to internal validity --history, maturation, testing, instrumentation, statistical regression, mortality, and selection -- listed in Huck, Cormier, and Bounds (1974) -- revealed that, if significant differences in between-group acceptability ratings appeared, they were almost certainly a result of the experimental manipulations and not due to extraneous variables.

In contrast, two threats to external validity, or "the degree to which the results of a study can be generalized to other groups or similar treatments" (Keith, 1988, p. 506), were present in the current study. One threat was related to the generalizability of the findings to the raters and the other threat was connected to the generalizability to the selection process of prospective predoctoral psychology interns. The former threat, nonrespondent bias or differential mortality, depended on the demographics of responders in comparison to nonresponders. The latter threat would be problematic if, as in all types of analogue research (Heppner, Kivlighan, & Wampold, 1992), the formulated intern applicant did not accurately represent a typical intern or if the experiment did not accurately simulate the actual selection process. Steps, however, were taken to minimize both of these threats.

In the case of the threat of nonrespondent bias, which may decrease the sample's representativeness, preventative and post-hoc efforts were executed to increase the return rates and to monitor dissimilarity between respondents and nonrespondents respectively. To increase return rates, a revised version of Dillman's (1978) suggestions for implementing mail surveys was followed based on recommendations from P. M. Spengler (personal communication, April 19, 1995) and from the results of two meta-analytic studies of mail survey response rates (Fox et al., 1988; Yammarino et al., 1991).

Guidance from these sources included guidelines for assembling the mail out package, selecting the mail out dates, sending the necessary number of follow-up mailings, and handling problems such as undelivered booklets, respondent inquiries, and general trouble-shooting.

With respect to precise response rates expected in the current research, "there was no simple answer to the question of how high a response rate must be to insure a valid survey (experiment)...No rules of thumb will substitute for intelligent judgment applied to specific cases" (Smith & Glass, 1987, p. 235). Kerlinger (1986) suggested that "every effort be made to obtain returns of at least 80 to 90 percent or more," but recognized that "returns of less than 40 or 50 percent are common. Higher percentages are rare. At best, the researcher must content himself with returns as low as 50 or 60 percent" (p. 380). Relatedly, a median response rate of 64% for survey research during the years 1980-1989 in the Journal of Counseling Psychology was found (Weathers, Furlong, & Solorzano,1993). Thus, a 50% response rate was set as the minimum rate acceptable for the current study. Furthermore, a power analysis (Cohen, 1988) of the major research question for this study suggested that, with an alpha level of .05 and four degrees of freedom, there would be an 80% probability that a large effect size, if actually present, would be found with a 50% return rate. In addition, there would be 50% and 12% probability that a medium or small effect, if actually present, would be found with the same 50% return rate. In this study, the larger the effect size the more prevalent the bias or differences in ratings of application materials.

If response rates following two or three mailings were to not reach a level of reasonable expectation (<50%), post-hoc efforts were to be initiated to examine whether

the characteristics of the nonrespondents differed statistically or meaningfully from the characteristics of the respondents (Holt, 1988). These comparisons were to follow along the lines of the demographic categories available in the APPIC directory (Krieshok et al., 1994), such as setting type and geographic location.

The other threat to external validity came from use of analogue research techniques, which, in the current study, simulated a prospective predoctoral psychology intern and the actual selection process. Because it was possible that the simulated intern was not an accurate representation of an actual intern and because not all information that would be typically available to the rater about the applicant was available (i.e., personal interview, university affiliation, etc.), it was possible that the actual process of intern selection was not being measured but something different. Therefore, it is possible that results may not extend to the actual intern selection process. Steps taken to rectify this potential threat to external validity entailed piloting procedures with relevant professionals and the cross-referencing of application materials with Megargee's (1992) sample curriculum vitae for predoctoral intern applicants and 50 applications forms from internship sites listed in the APPIC directory (Krieshok et al., 1994). At the very least, this study resembled the initial screening process, rather than the entire selection program.

Interestingly, however, several authors have argued that prospective interns be rated on more objective criteria than personal interviews, university affiliation, etc. (e.g., Plutchik et al., 1980; Ross & Altmaier, 1989; Suran et al., 1977). Because of the objective nature of this experimental research, this analogue research may have been appropriately generalizable to selection committees using the more objective criteria.

### Independent Variable

The APA accredited doctoral program type of the prospective intern, which was prominently listed twice in the standardized application packet of materials, was randomly assigned, and one application was prepared for each internship site. Therefore, for the 534 sites, 178 each received an application packet with clinical, counseling, or school psychology specified. No other information was provided to the rater about the applicant other than that supplied in the booklet.

### Dependent Variable

The dependent variable was the rating of the applicant by either the director of the clinical internship or another member of the intern selection committee. Resultant responses were coded 1-accept, 2-hold, and 3-reject, and the data were treated as having an ordinal scale of measurement.

## Procedure for Data Collection

Before the mailing occurred, booklets were randomly assigned to the 534 internship sites. One-third (178) of the internship sites received booklets which included the application materials of a prospective intern from a clinical psychology doctoral program. The other two-thirds of internship sites received booklets specifying that the application materials came from a prospective counseling or school psychology intern respectively.

The booklets were mailed in business envelopes, with printed mailing labels addressed to individual subjects. Each booklet included a printed cover letter in which participants were addressed by name and title. Each cover letter included this researcher's signature as well as his supervisor's signature, and an addressed, stamped return envelope

was enclosed. Additionally, a follow-up postcard (see Appendix F) and one letter (see Appendix G) were utilized. Of note was the fact that the letters and surveys did not identify the project title, university affiliation, or program type of the investigators. This information was purposely omitted in order to: a) obscure the investigators' purpose which might cause responders to rate applicants in a particular direction and b) avoid introducing possible biases based on the program type of the investigators.

## Mailing Schedule

Following approval of the research from the Ball State University Institutional Review Board (IRB) (see Appendix I), the mailing schedule was systematic. Following photocopying, the questionnaire packets were mailed in June, 1995. One week later an individually sealed reminder postcard was sent to all subjects. After three weeks, during July, 1995, a follow-up mailing was sent to non-respondents. Because >50% response rate had been obtained at this point, neither a third mailing or a phone interview of random non-respondents was necessary.

The timing of this survey was set to maximize response rates. This was because intern selectors were not actively involved in the demanding selection process during the summer months. However, the timing which may have posed a problem to generalizability because selectors may not be in the mindset of rating applicants at this time. Typically, the annual rating process runs continuously from November to February.

## Debriefing

The next step of the procedure was the debriefing. For these purposes, every subject was provided with a summary of results if requested (see Appendix H). Additionally, the summary was forwarded to the editor of the APPIC Newsletter.

## Data Analysis

The first research question was developed to determine whether biases, positive and/or negative, existed within the psychology internship selection process. Thus, a 3 x 3 matrix (acceptability for employment x doctoral program type) was created. The expectation was that all cells would have equally distributed frequencies if no bias existed, suppporting the null hypothesis. This balance was expected due to randomization and experimental control of the dependent variable. Significant variation from the null hypothesis would indicate that biases based on doctoral program type of the applicant are likely in effect. To test for this variation at the .05 alpha level, a chi-square analysis was performed on the Number Cruncher Statistical System, version 5.03 (NCSS: Hintze, 1992). This analysis statistically determined whether acceptance for internship positions was influenced by doctoral program type.

Next, after statistical significance was obtained, practical significance was examined via a measure of association for categorical data. The statistic utilized was Cramer's phi ($V_c$), which is interpreted analagously to Pearson $r$ and has a potential range of 0.00 (no association) to 1.00 (perfect association), but cannot be squared to get a measure of explained variation in one variable attributable to another variable (Fallik & Brown, 1983). $V_c$ has been found to be far superior to another commonly used measure of association for categorical variables: the contingency coefficient (Welkowitz, Ewen, & Cohen, 1991).

After practical significance, or a moderately strong relationship between the two variables, was found using $V_c$, the method of inspection was utilized to examine trends

within the matrix. The method of inspection helped to determine the patterns of acceptability ratings or biases.

Next, a standardized residual analysis was employed to obtain statistical corroboration of the findings from the method of inspection. The essential goal of a standardized residual analysis is to discern which cells contributed most to the statistically significant overall chi-square (see Hays, 1994, ch. 18). In a standardized residual analysis, each cell is given a value based on the magnitude of difference between the expected cell frequency and the observed cell frequency. The larger the difference, the more the cell contributed to the significance of the overall chi-square. Because the standardized residual analysis occurred post-hoc and because a conservative approach was warranted, a Bonferroni procedure was enacted to adjust the prespecified familywise alpha error rate of .05 to .006 per comparison. This change in alpha resulted from the fact that that there were nine cells to be examined (see Hays, 1994, ch. 11). Thus, at the Bonferroni adjusted familywise error rate of .006, for two-tailed tests, the standardized residual was statistically significant only if its z value exceeded the absolute value of 2.78 (see a table of areas under normal curve, such as that available in Fallik & Brown, 1983, p. 524).

The manner in which research question number two was answered was dependent on the results from research question number one. Because distinct patterns emerged, a series of method of inspections and/or standardized residual analyses were employed to shed light on the overall results. The series of matrices that were examined were subsets of the two rater variables (i.e., gender and doctoral program type attended) and four

setting variables (i.e., geographic location, setting type, population density served, and socioeconomic status of client population).

# CHAPTER IV

# RESULTS AND DISCUSSION OF RESULTS

The purpose of this study was to address the following questions:

1. Are prospective predoctoral interns from APA accredited clinical, counseling, and school psychology doctoral programs, with identical application materials, rated differently in terms of acceptability for employment by directors of APPIC-listed predoctoral psychology internships and/or intern selection committee members.
2. If differences in acceptability ratings exist, can they be attributed to particular characteristics of the raters and/or the internship settings?

## Fundamental Results

### Response Rate

Of the 534 surveys mailed, three were returned to the sender by the Post Office, six were returned by individuals who were deemed non-eligible by this researcher because the internship programs were discontinued, and one internship director mistakenly returned a different survey. Of the remaining 333 surveys which were returned, four were left completely blank, resulting in 328 usable replies. This represented a final response rate of 63%. Of the four blank replies, two respondents indicated they would not participate because the letters and surveys received did not identify the project title, university affiliation, or program type of the investigators, one respondent was too busy to complete the survey, and the other offered no reason.

Of the usable surveys, not all respondents replied to every question. In fact, for the major question regarding the acceptability for employment of the applicant, only 302 responded. Thus, an adjusted response rate was 58%. Either way, the response rate obtained in this study exceeded prespecified expectations and was at an acceptable level for statistical power to be sufficient.

Regarding the 31 usable replies that contained no rating of the applicant, a large proportion included notes from raters suggesting that they would not be able to reach a decision from the information provided. Indeed, as discussed in the review of literature, many stated that they were unable to make selection decisions without an interview, letters of recommendation, and/or more specific information related to clinical experiences. A few others just left the question blank.

The problem mentioned above was discussed in the methodology section as a limitation of analogue survey research which could, and in fact did, pose a problem to the external validity of the current study. Indeed, because many intern selectors did not rate the employability of the applicant, these findings may not actually be generalizable to the actual intern *selection* process. Instead, the results obtained may have been more reflective of a *screening* process that typically occurs before selection decisions are made.

## Characteristics of Respondents

As noted in the review of literature, little is known about the characteristics of intern selectors except for gender, highest degree obtained, and psychological approach. Therefore, little baseline information is available for comparison. Given the lack of comparable information and the instrumentation used in this research, the only comparisons that could be made related to gender and highest degree obtained. With regard to this information, of the 316 surveys returned with gender indicated, 190 (60%) were male and 126 (40%) were female (12 respondents did not indicate their gender). The highest degree obtained by 286 (90%) of the 319 respondents was a Ph.D., with 25 (8%) receiving Psy.D. and 5 (2%) Ed.D.. All of these figures are highly consistent with reports in the review of literature (Krieshok et al., 1994).

The average age of the 312 survey respondents with age indicated was 46 years with a standard deviation of about eight years. Most (93%) were the directors of selection committees as opposed to being committee members. Other response rates according to program type attended, population of density served, and socioeconomic status (SES) of clients are given in Table 1.

Most respondents worked at sites located in non-rural areas and served lower to middle income SES clients. In addition, it is important to note that the majority of the respondents attended clinical programs with a sizable minority having attended counseling programs. Very few respondents attended school psychology programs.

The percentages of completed surveys returned by respondents from various site types and geographic locations are shown in Figures 1 and 2. With regard to both site type and geographic location, the ranges of 33% to 71% and 49% to 67%

Table 1

Demographic Information of Survey Respondents

| Demographic Variable | Type of Survey Sent | | | | |
|---|---|---|---|---|---|
| | Clinical | Counseling | School | Total | |
| | n | n | n | n | % |
| Position on Selection Committee | | | | | |
| Director | 105 | 98 | 93 | 296 | 93 |
| Member | 10 | 4 | 0 | 14 | 4 |
| Other | 1 | 2 | 6 | 9 | 3 |
| Program Type Attended | | | | | |
| Clinical | 81 | 67 | 65 | 213 | 67 |
| Counseling | 22 | 23 | 21 | 66 | 21 |
| School | 5 | 4 | 2 | 11 | 3 |
| Other/Combined | 8 | 9 | 10 | 27 | 9 |
| Population Density of Area | | | | | |
| Rural | 3 | 3 | 1 | 7 | 2 |
| Small Town | 20 | 9 | 13 | 42 | 14 |
| Suburban | 21 | 14 | 26 | 61 | 20 |
| Urban | 65 | 77 | 55 | 197 | 64 |
| Socioeconomic Status of Clients | | | | | |
| Upper Income | 0 | 2 | 0 | 2 | 1 |
| Middle Income | 34 | 29 | 31 | 94 | 30 |
| Lower Income | 68 | 67 | 53 | 188 | 59 |
| Combined | 13 | 7 | 12 | 32 | 10 |

Figure 1. Percentage of completed surveys returned by site type. Veteran's Affairs Medical Centers (n=68), Medical Schools (n =72), Private General Hospitals (n = 30), Private Psychiatric Hospitals (n = 19), Children's Facilities (n = 41), State/County Hospitals (n = 56), Community Mental Health Centers (n = 60), Military Facilities (n = 9), University Counseling Centers (n = 84), Consortiums (n = 31), and Other (n = 65).

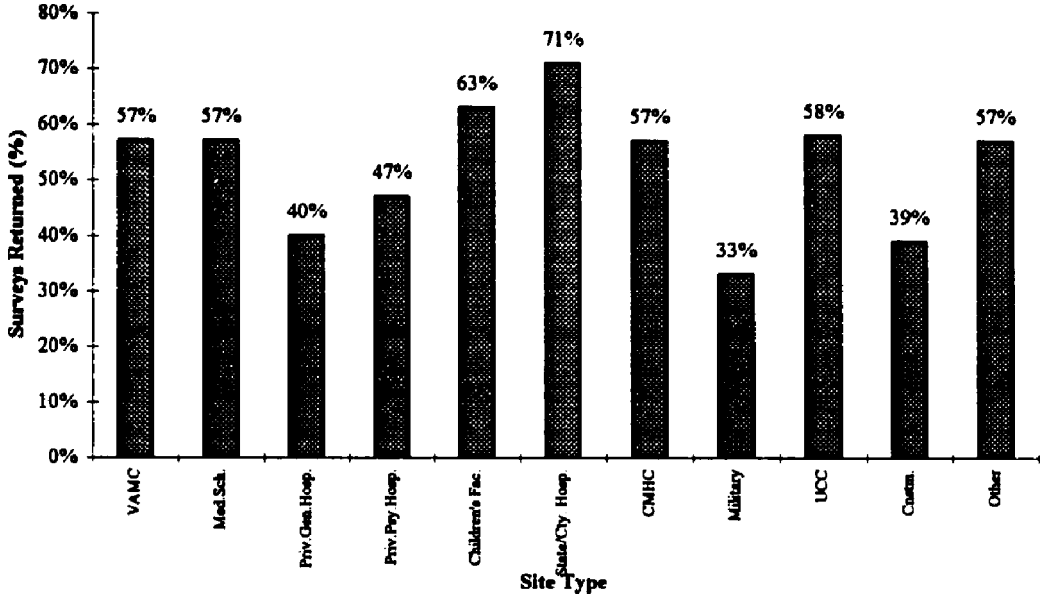
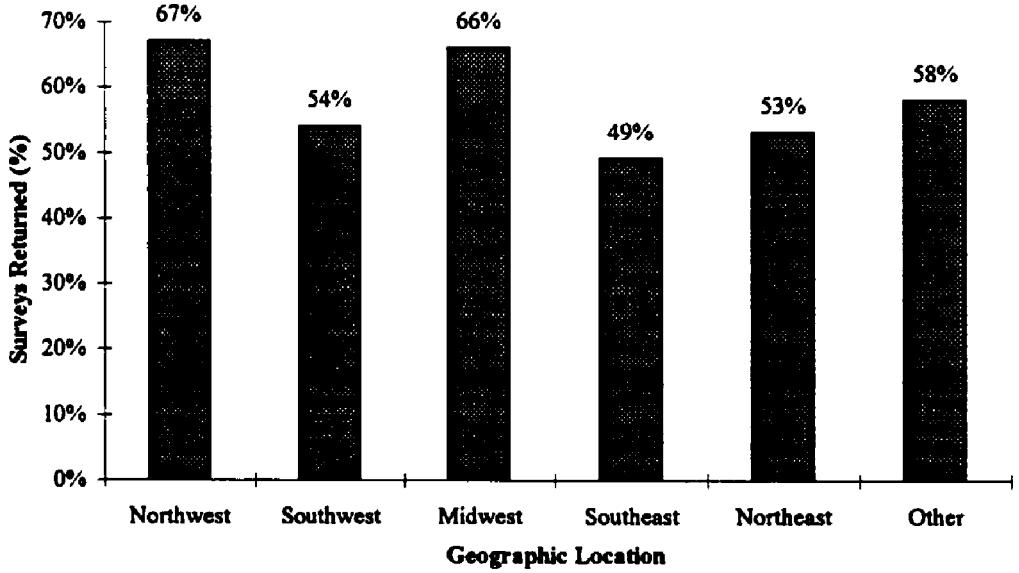



Figure 2. Percentage of completed surveys returned by region. Northwest (WA, OR, MT, ID, NV, UT, CO, WY) n=33, Southwest (CA, TX, OK, NM, AZ) n=93, Midwest (ND, SD, NE, KS, MO, IA, MN, IL, IN, WI, OH) n=122, Southeast (AR, FL, LA, MS, AL, GA, SC, NC, VA, WV, KY, TN) n=91, Northeast (NY, PA, NJ, DE, MD, CT, MA, VT, NH, ME) n=171, Other (Hawaii, Canada and Puerto Rico) n=14.



respectively, indicated that, in general, there was adequate response from raters from all site types and locations. It is unlikely that differences in response percentages significantly skewed the results in this study.

The percentages in Figure 1 would have been more important to this study had results been skewed toward site types which catered to a particular type of applicant such as the Medical Schools and UCCs, which have traditionally preferred applicants from clinical and counseling programs respectively. However, similarly proportioned distributions in relation to site types and geographic locations emerged and the issue was rendered moot.

A final consideration regarding the characteristics of the sample was whether surveys with a particular program type specified were disproportionately returned.

Table 2

Surveys Completed And Returned By Application Program Type

| Program attended by survey applicant | n | % |
|---|---|---|
| Clinical | 111 | 37 |
| Counseling | 95 | 31 |
| School | 96 | 32 |
| Total | 302 | 100 |

Note. The maximum number of possible returns for each doctoral program type = 178.

Table 2 presents the number and percentage of responses received for each of the three program types. The highest response rate came from those who were sent

application materials with clinical psychology indicated. The skewed response may have resulted because respondents who attended clinical programs and received materials from a clinical applicant more often returned the materials than if they received materials from a non-clinical applicant. This skewing probably arose because many selection committees choose to not review application materials from applicants from non-clinical programs. Therefore, it was possible that these non-respondents may have discarded surveys with counseling or school psychology specified.

In summary, the response rate for this research was adequate. Despite the caution that survey respondents often differ in meaningful ways from non-respondents (Rosenthal & Rosnow, 1975), the respondents in the current study appeared to be demographically consistent with information about internship directors located in the APPIC directory. Responses also were proportionately distributed across a range of demographic variables, including site types and geographic locations. As a result, this sample may be viewed as representative of the entire population of intern selectors.

## Answers to Research Questions

### Question One

*Are prospective predoctoral interns from APA accredited clinical, counseling, and school psychology doctoral programs with identical application materials rated differently in terms of acceptability for employment by directors of APPIC-listed predoctoral psychology internships and/or intern selection committee members?*

In order to answer research question number one, frequency counts were inserted into a 3 x 3 matrix (program type x acceptability ratings) and submitted to an overall chi-square analysis using .05 as the criterion of significance. Table 3 presents

the obtained frequencies with corresponding percentages. As described in Chapter 3, Vc was utilized as a measure of strength of association.

In this analysis, obtained frequencies within each cell were compared with the expected frequencies. It was expected that each row's cell would be evenly distributed; thus, if within a row there were nine responses, three responses were expected in each of the row's three cells. The more each row's cells deviated from expectations, the greater the overall value of chi-square would be.

A statistically significant $\chi^2$ (4, n = 302) = 97.21, p <.00001 was obtained. In other words, it was not likely due to chance that doctoral program type influenced acceptability for employment. Moreover, the relationship between acceptability for employment and doctoral program type was Vc = .40. Unfortunately, Vc cannot be squared like r to give an explanation of variance (Fallik & Brown, 1983, p. 424). A Vc of that magnitude does, however, indicate a moderate relationship between the two variables; some measure of practical significance (Fallik & Brown, 1983).

Although both statistical and practical significance were found, clarification of these findings was made by examining the matrix trends. This examination was accomplished using the method of inspection and a standardized residual analysis. Although the method of inspection only requires visual inspection of data, standardized residual analysis relies on statistical properties of the matrix to establish patterns of bias (Hays, 1994). However, both are useful when applied in combination.

Table 3

Program Type By Acceptability Ratings For Entire Sample

| | Response to Applicant | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Accept | | Hold | | Reject | | Total | |
| | n | %* | n | % | n | % | n | % |
| Type of Survey Sent | | | | | | | | |
| Clinical | **73** | 66 | 35 | 32 | **3** | 2 | 111 | 37 |
| Counseling | 46 | 48 | 42 | 44 | 7 | 7 | 95 | 31 |
| School | 30 | 31 | 28 | 29 | **38** | 40 | 96 | 32 |
| Total | 149 | | 105 | | 48 | | 302 | 100 |

Note. Numbers in bold face have standardized residuals which exceed |2.78| and contributed to significant overall $\chi^2$. In cases where percentages do not total 100, differences can be attributed to rounding error.

* Percentage of total returned for each doctoral program type.

Following inspection of the patterns in Table 3, it was apparent, as was hypothesized, that there was greater acceptance of applicants from clinical programs than those from counseling or school programs. In terms of rejection patterns, the order was reversed. Further clarification came from a standardized residual analysis.

Next a standardized residual analysis was performed on the overall matrix. Bold figures within Table 3 represent cells with standardized residuals that exceeded the absolute value of 2.78, or, in other words, stood out statistically. Although all three bold numbers are important and suggestive, the two which may be the most meaningful are the number of acceptances of applicants from clinical programs and the number of rejections of applicants from school programs. These numbers clearly exceeded the other numbers in each of their respective columns. This finding confirms statistically what was noted following the method of inspection.

In conclusion, doctoral program type of the candidate influences selection decisions. Indeed, intern selectors are more likely to make offers to applicants from clinical programs than they are to make offers to applicants from counseling or school programs, **despite identical application materials**. Additionally, of the latter two programs, applicants from counseling programs have a distinctly better chance for acceptance than applicants from school programs. Conversely, applicants from school programs stand a greater likelihood of being rejected than competitors from counseling and clinical programs. In fact, applicants from clinical programs were rejected only 3% of the time in the current study. These patterns of acceptability for employment are pervasive across a variety of rater characteristics and site variables.

Given the greater prestige afforded to clinical (Koocher, 1995), as opposed to counseling or school psychology and the similar preferences within the APPIC directory (Krieshok, et al., 1994) and previous research (e.g., Sturgis et al., 1980), the research hypothesis regarding bias was formed. However, by equalizing all other variables except doctoral program type of the applicant in the form of a standardized application, cell

frequencies should have been proportionately balanced. Statistical and practical differences were found between observed and expected frequencies, supporting the research hypothesis. Thus, it can be concluded that a selection bias for applicants from clinical psychology programs and against applicants from school psychology programs exists. Program type is a highly influential variable in, at least, the screening process of potential predoctoral psychology interns.

Question Two

*If differences in acceptability ratings exist, can they be attributed to particular characteristics of the raters and/or the clinical internship settings?*

Only the method of inspection was necessary to shed light on the overall findings. This is because the results to research question number one were so pervasive that, in the interest of parsimony, findings argued against instituting multiple post-hoc statistical analyses. Thus, the method of inspection was employed to examine the primary 3 x 3 (program type x acceptability ratings) matrix with several subsets of the original data including the two rater (i.e., gender and doctoral program type attended) and four setting variables (i.e., geographic location, setting type, population density, and socioeconomic status). Table 4 presents the distribution of frequency counts according to the subsets of the two rater variables.

Table 4

Percentage Of Surveys Returned For Each Doctoral Program Type According To Personal Variables.

| | Type of Survey Sent | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Counseling | | | School | | |
| | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) |
| Personal Variable | | | | | | | | | |
| Gender | | | | | | | | | |
| Male | 58 (38) | 26 (17) | 17 (11) | 48 (28) | 41 (24) | 12 (7) | 39 (25) | 23 (15) | 39 (25) |
| Female | 54 (35) | 28 (18) | 19 (12) | 53 (17) | 47 (15) | 0 (0) | 16 (5) | 42 (13) | 42 (13) |
| Doctoral Program Type Attended | | | | | | | | | |
| Clinical | 65 (50) | 34 (26) | 1 (1) | 44 (27) | 46 (28) | 10 (6) | 30 (19) | 27 (17) | 43 (27) |
| Counseling | 62 (13) | 29 (6) | 10 (2) | 64 (14) | 32 (7) | 5 (1) | 30 (6) | 25 (5) | 45 (9) |
| School | 80 (4) | 20 (1) | 0 (0) | 50 (1) | 50 (1) | 0 (0) | 100 (2) | 0 (0) | 0 (0) |
| Combined | 75 (6) | 25 (2) | 0 (0) | 50 (4) | 50 (4) | 0 (0) | 30 (3) | 50 (5) | 20 (2) |

Note. In cases where percentages do not add up to 100, differences can be attributable to rounding error.

## Rater Variables

The first rater variable of importance was gender. An examination of this portion of Table 4 revealed that male and female intern selectors rated applicants similarly, replicating the overall pattern of biases. Only minor differences emerged. For example, males rated counseling applicants more harshly than females, as noted by the seven rejections, and females were proportionately more stringent in ratings of school applicants.

The other important rater variable to consider was the type of doctoral program attended by the respondent. It was expected that respondents would prefer applicants from the same program type they attended based on a review article by Ross and Altmaier (1989). Despite the lack of overall response from raters who attended school and combined type programs, this pattern, indeed, proved to be the case. To illustrate, raters who attended clinical programs were less likely to accept, and more likely to reject, applicants from counseling and, especially, school programs. The importance of this finding is compounded, given that the highest proportion (67%) of respondents had attended clinical programs.

It is possible that the doctoral program type attended by the rater may be one of the primary variables associated with the pervasive preferences for clinical applicants. Perhaps, the biases would be less prevalent if there were a more balanced distribution of intern selectors from different doctoral program types.

## Setting Variables

Of the four setting variables of interest, geographic location and site type are of most importance because of their influence in the intern applicants' decisions. In contrast, population density in the site's locale and socioeconomic status of a site's clientele are of less importance in most interns' decision making processes (see for e.g., Lopez et al., 1995). Tables 5-8 present the distribution of frequency counts according to the subsets of the four setting variables. Across all four setting variables, it was apparent how the pervasiveness of the overall findings was replicated as was the case across the aforementioned two rater variables. However, as also was the case with the two rater variables, minor, yet notable, differences in ratings emerged.

According to the literature review, there was little evidence to suggest that raters from one geographic region were inherently more biased than those from another region. However, despite the incomparable number of sites by region, findings in the current study contradicted this expectation. For example, raters from Southwest and Midwest regions were more stringent in their ratings of applicants from school programs, as evidenced by the greater number of rejections than were present in the other regions. In contrast, raters from the Northwest were more likely to reject applicants from clinical programs and more likely to rate applicants from school programs favorably. However, skewing may have resulted due to a lack of sites, and respondents, within the region.

Regarding the various site types, the literature review stressed that intern selectors from certain setting types would prefer applicants from certain program types or discriminate against applicants from other program types. For example, it was

Table 5

Percentages of Acceptability Ratings For Each Doctoral Program Type According to Location.

| | Type of Survey Sent | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Counseling | | | School | | |
| | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) |
| Location | | | | | | | | | |
| Northwest | 50 (4) | 50 (4) | 0 (0) | 43 (3) | 43 (3) | 14 (1) | 57 (4) | 14 (1) | 29 (2) |
| Southwest | 71 (10) | 21 (3) | 7 (1) | 58 (11) | 32 (6) | 11 (2) | 18 (3) | 24 (4) | 59 (10) |
| Midwest | 58 (18) | 35 (11) | 6 (2) | 54 (13) | 46 (11) | 0 (0) | 26 (7) | 41 (11) | 33 (9) |
| Southeast | 71 (12) | 29 (5) | 0 (0) | 47 (7) | 47 (7) | 7 (1) | 23 (3) | 23 (3) | 54 (7) |
| Northeast | 71 (27) | 29 (11) | 0 (0) | 42 (11) | 50 (13) | 8 (2) | 41 (11) | 33 (9) | 26 (7) |
| Other (Canada and Foreign) | 67 (2) | 33 (1) | 0 (0) | 25 (1) | 50 (2) | 25 (1) | 29 (2) | 29 (2) | 43 (3) |

Note. In cases where percentages do not add up to 100, differences can be attributable to rounding error.

Table 6

Percentages Of Acceptability Ratings for Each Doctoral Program Type According To Site Type.

| | Type of Survey Sent | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Counseling | | | School | | |
| | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) |
| Type of Setting | | | | | | | | | |
| Veterans' Affairs Medical Center | 69 (9) | 31 (4) | 0 (0) | 72 (13) | 28 (5) | 0 (0) | 25 (2) | 13 (1) | 63 (5) |
| Medical School | 47 (7) | 53 (8) | 0 (0) | 23 (3) | 54 (7) | 23 (3) | 23 (3) | 23 (3) | 54 (7) |
| Private General Hospital | 67 (2) | 33 (1) | 0 (0) | 50 (2) | 50 (2) | 0 (0) | 20 (1) | 40 (2) | 40 (2) |
| Private Psych. Hospital | 100 (2) | 0 (0) | 0 (0) | 0 (0) | 100 (4) | 0 (0) | 0 (0) | 33 (1) | 67 (2) |
| Children's Facility | 67 (8) | 33 (4) | 0 (0) | 63 (5) | 38 (3) | 0 (0) | 67 (4) | 33 (2) | 0 (0) |
| State/County Hospital | 76 (13) | 24 (4) | 0 (0) | 36 (4) | 45 (5) | 18 (2) | 25 (3) | 17 (2) | 58 (7) |
| Community Mental Health Center | 78 (14) | 17 (3) | 6 (1) | 67 (4) | 33 (2) | 0 (0) | 60 (6) | 20 (2) | 20 (2) |
| Military Facility | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 33 (1) | 67 (2) |
| University Counseling Center | 41 (7) | 47 (8) | 14 (2) | 40 (6) | 60 (9) | 0 (0) | 35 (6) | 35 (6) | 29 (5) |
| Consortium | 50 (1) | 50 (1) | 0 (0) | 33 (1) | 33 (1) | 33 (1) | 0 (0) | 29 (2) | 71 (5) |
| Other | 83 (10) | 17 (2) | 0 (0) | 62 (8) | 31 (4) | 8 (1) | 42 (5) | 50 (6) | 8 (1) |

Note. In cases where percentages do not add up to 100, differences can be attributable to rounding error.

suggested that applicants from clinical programs would be rated more favorably than counterparts from counseling and school programs by raters from VAMCs and Medical Schools. On the other hand, respondents from CMHCs and UCCs were expected to prefer applicants from counseling programs. Although not yet explicitly stated, children's facilities could be thought to be more amenable to applicants from school programs whose training is focused on work with children and adolescents. As described in Chapter Two, these expected patterns were based on well-known conceptions of clinical, counseling, and school psychology and their long-term affiliations with the previously mentioned site types. No patterns were expected for the other site types.

Results obtained from the raters from VAMCs and Medical Schools closely matched the overall preference pattern for applicants from clinical programs. Generally, raters from Medical Schools, and UCCs for that matter, stood out as the least likely to accept the applicant, regardless of program type, as noted by the higher numbers of holds and rejections across program types.

Of the two site types whose raters were expected to prefer counseling applicants (i.e., CMHCs and UCCs), only raters from UCCs had alternative preference patterns that differed from expectations. UCCs rated applicants from clinical and counseling programs similarly. As expected, raters showed an unfavorable response to school psychology applicants.

The raters from Children's facilities did not prefer applicants from school programs, as was expected. In fact, raters from this site type did not differ from the

Table 7

Percentages Of Acceptability Ratings For Each Doctoral Program Type According To Population Density of Respondents' Locale.

| | Type of Survey Sent | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Counseling | | | School | | |
| | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) |
| Population Density | | | | | | | | | |
| Rural | 100 (3) | 0 (0) | 0 (0) | 67 (2) | 33 (1) | 0 (0) | 100 (1) | 0 (0) | 0 (0) |
| Small Town | 72 (13) | 22 (4) | 6 (1) | 63 (5) | 38 (3) | 0 (0) | 31 (4) | 31 (4) | 38 (5) |
| Suburban | 71 (15) | 29 (6) | 0 (0) | 45 (5) | 36 (4) | 18 (2) | 42 (11) | 15 (4) | 42 (11) |
| Urban | 63 (40) | 36 (23) | 2 (1) | 48 (34) | 45 (32) | 7 (5) | 25 (13) | 37 (19) | 38 (20) |

Note. In cases where percentages do not add up to 100, differences can be attributable to rounding error.

Table 8

Percentages Of Acceptability Ratings For Each Doctoral Program Type According to Socioeconomic Status of Respondents' Clientele.

| | Type of Survey Sent | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Clinical | | | Counseling | | | School | | |
| | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) | Accept % (n) | Hold % (n) | Reject % (n) |
| Socioeconomic Status | | | | | | | | | |
| Upper | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 50 (1) | 50 (1) | 0 (0) |
| Middle | 47 (16) | 47 (16) | 6 (2) | 48 (13) | 44 (12) | 7 (2) | 27 (8) | 30 (9) | 43 (13) |
| Lower | 75 (49) | 23 (15) | 2 (1) | 48 (30) | 45 (28) | 6 (4) | 37 (19) | 25 (13) | 38 (20) |
| Combined | 64 (7) | 36 (4) | 0 (0) | 50 (2) | 25 (1) | 25 (1) | 18 (2) | 36 (4) | 45 (5) |

Note. In cases where percentages do not add up to 100, differences can be attributed to rounding error.

general rating pattern. The other six setting types also showed the same general pattern.

Of the subsets of the other two setting variables, the population density of the rater's locale had no apparent influence over the major research finding. However, with regard to socioeconomic status of the area, some variation was noted, especially from raters located in sites with service focused on middle class clientele. These respondents did not show a clear preference for clinical applicants over counseling applicants, as did the raters from site types servicing clients from other socioeconomic levels.

In conclusion, the overall findings of this study suggested a definite influence of doctoral program type on acceptability for employment, as stated in the research hypothesis. However, minor differences in acceptability ratings were also discovered within specific subsets of the rater characteristics and setting variables. For example, the majority of raters, who happened to be from clinical programs, were more inclined to accept applicants from clinical programs. Raters from particular geographic regions and site types were more stringent on applicants from particular programs.

Of course, statements related to the generalizability of these more specific findings must be tempered with caution due to the lack of data in the matrices when variables were subdivided. A more prudent approach to the interpretation of the current study's results would adhere to the most significant finding that, at least at a screening stage, intern selectors prefer applicants from clinical programs first, counseling programs second, and school programs third.

# CHAPTER V

# SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

## Summary

The predoctoral psychology internship marketplace has recently received an increasing amount of attention in the research literature (e.g., Gloria & Robinson, 1994; Ross & Altmaier, 1989; Stedman et al., 1991) and in popular professional forums (e.g., Dahbany, 1994; Murray, 1996; Hyman et al., 1994). This focus appears to have been brought about because of reports of an increase in the number of students who, following the selection process, are left without internships (Gloria & Robinson, 1994; APPIC, 1995). That many students are unable to secure internships is a major problem for applied psychology as a whole because multifaceted, well supervised predoctoral internships are one of the final tasks necessary before graduation from APA accredited doctoral programs in clinical, counseling, and school psychology.

Due to this problem, some authors have begun to question: (a) the reasons for a shift in supply and demand in the internship marketplace (e.g., Murray, 1995; 1996) and (b) the factors that increase the likelihood of being a selected applicant (e.g., Lopez, Moberly, & Oehlert, 1995). This study focused on the latter question and was unique in its method for answering it. In particular, because it was hypothesized that doctoral program type attended by applicants (i.e., clinical, counseling, or school psychology) influenced intern selection decisions, an experimental study utilizing analogue techniques

was designed to test this hypothesis. The study was unique because all previous research in the area was non-experimental.

Traditionally, students from school psychology programs applied to and obtained internships in schools, while students from clinical and counseling psychology programs applied to and were offered internships in clinical settings, such as CMHCs, Medical Schools, and VAMCs (Holder & Dodge, 1987; Phillips, 1981). Gradually, as schools became less viable internship alternatives for students from school psychology doctoral programs due to increasingly singular, assessment-based nature and lack of appropriate, doctoral-level supervision, students were advised by trainers to begin to apply for clinical internships, which typically did not evidence such limitations (Hyman et al., 1994). This advice came because students in school programs were viewed as having received highly similar structure and content in their training programs to counterparts in clinical and counseling programs (D'Amato & Dean, 1989b; Gayer & Gridley, 1995; Levy, 1986; Matarazzo, 1987).

During the last decade, when students from school psychology programs began to more frequently venture into the non-traditional, clinical internship domain, a fluctuation in the supply and demand dynamics coincided; supplies of interns outweighed demands for interns (Gloria & Robinson, 1994; Murray, 1996). This fluctuation was not entirely based on the increase of applicants from school psychology programs, but rather from a confluence of reasons: (a) the number of applied psychology doctoral students was increasing more rapidly than the number of internships, especially those that were APA accredited; (b) doctoral students from a greater variety of programs (e.g., clinical/developmental) were seeking APA accredited internships due to newly

incorporated program requirements; (c) many applicants were unable or unwilling to move to different geographical locations to gain an internship; (d) a tremendous influx of applicants from professional psychology programs (i.e., Psy.D. programs) occurred; and (e) recent budget cuts in funding of health care systems reduced the number of settings which could afford the stipends or staff time to train interns (Murray, 1996; Jay S. Zimmerman, personal communication, April 19, 1995).

Although not empirically substantiated, it was logical to surmise that this state of affairs resulted in concerted efforts from internship directors to become more selective in intern screening because of the greater variety of applicants from which they could select. According to the most recent surveys of internship training directors, the emerging selectiveness should have centered on several factors including applicants' clinical experience, performance during interviews, letters of recommendations, and academic credentials (Lopez et al., 1995). These factors tended to emphasize individualized characteristics of students.

However, according to clinical judgment literature, intern selectors, who were reviewing increasing numbers of application materials from prospective interns frantic to secure positions, may have become susceptible to committing cognitive errors during the applicant screening process based on applicants' group memberships (e.g., doctoral program types). These errors could have included judgmental heuristics, or decisions made without considering all of the information available, and fundamental attribution errors, which could have occurred if intern selectors evaluated applicants based on preconceived notions, rather than on the actual information conveyed by the applicant (Sleek, 1996). Intern selectors may have opted to look for screening variables such as

doctoral program type or prestige of doctoral program in the application materials of particular applicants in order to simplify the selection process and reduce the number of application materials necessary to critically review (Ross & Altmaier, 1989).

Ultimately, this happenstance created a dilemma for any student who was negatively judged based on group membership rather than individual characteristics. However, the dilemma was especially poignant to school psychology students from APA accredited programs because there had long been a negative bias associated with the title school psychologist (Bardon, 1989). Many in the mental health field long associated school psychologists with a particular setting (i.e., schools), which may have led to the exclusion of school psychologists from other settings and the concurrent development of a false belief that school psychologists were incapable of serving appropriately in non-school settings. As stated above, pre-internship school psychologists have undergone quite similar training structure and content as counterparts from clinical and counseling psychology. Moreover, no outcome studies were completed which compared the knowledge and skills of pre-internship students from APA accredited programs (Gayer & Gridley, 1995). Thus, if there was a bias based on doctoral program type influencing the intern selection process, and if the bias was, as suspected, against students from accredited school psychology programs, it was empirically unjustifiable.

The purpose of this study was to determine if bias against students from school psychology doctoral programs, and for students from clinical and counseling programs, was in effect within the predoctoral psychology internship selection process. If these biases were in effect, post-hoc analyses were to be conducted to shed light on which characteristics of intern raters and internship settings it was associated. The data could

then be used to refute or substantiate the hypothesis of selection bias, to pinpoint in which quarters the bias was most prevalent, and to argue against unfair intern selection practices. Also, the data could be used to spur future related research efforts which would help develop a greater understanding of employment practices in professional psychology, especially at the internship level.

To accomplish these goals, an experimental survey with analogue information (i.e., simulated application materials) about a prospective intern, equally representative of a pre-internship student from a clinical, counseling, or school psychology program was designed. Internship application materials, identical in all respects except for the doctoral program type, were randomly sent in equal numbers to all but one of the 535 directors of APPIC internship sites. Each third of the 534 sites received application materials from students from either APA accredited clinical, counseling, or school psychology programs. The frequencies in which the various applicants were accepted, held, or rejected by the internship selection committee directors or members was the dependent variable. Thus, a post-test only, control group, true experimental design was used.

The resultant data, after being placed in a 3 x 3 matrix (doctoral program type x acceptability for employment), were tested at the .05 criterion of significance with an overall chi-square analysis. This analysis was followed with a tabulation of a measure of association for categorical variables (Vc) (Fallik & Brown, 1983). Further clarification of the data was obtained through use of the method of inspection and a standardized residual analysis (Hays, 1994).

Participants who responded to the major research question were internship directors or intern selection committee members from 302 APPIC-listed internship sites.

This number translated into a 58% response rate. Demographic characteristics of the respondents mimicked data already available for this population (Krieshok et al., 1994). Also, respondents were distributed similarly across a variety of internship setting types and across several geographic regions.

There were two noteworthy findings regarding the sample. First, 31 respondents (9%) did not answer the major research question regarding the acceptability of the applicant in large part due to the lack of information, such as letters of recommendation and interviews, on which they have regularly relied for their selection decisions. This lack of information available to raters, which posed a problem for the generalizability of these findings to the actual intern selection process, was described in the methodology section as a limitation of most analogue research. Thus, the results obtained may have been more reflective of a screening of the application materials that typically occurs before invitations for interviews are extended.

The other finding of note was that two-thirds of respondents graduated from clinical programs, while 21% had attended counseling programs. In contrast, only 3% of respondents had attended school programs, while 9% attended combined/other types of doctoral programs. Because personnel psychology has provided examples that there is a bias on behalf of employers towards offering positions to people with similar background characteristics (see Ross & Altmaier, 1989 for a review), it can be surmised that these differences may have been influential in the results. Quite possibly, because the majority of respondents had attended clinical programs, the applicants with clinical psychology indicated may have had an advantage during the current study. This advantage may be generalized as well to the actual selection process and could help to explain preferences.

In terms of results, after observed frequencies were inserted into a 3 x 3 matrix (doctoral program type by acceptability ratings), the null hypothesis that no differences would be apparent in any cells of a particular row (i.e., no bias) was tested with an overall chi-square analysis. The research hypothesis that doctoral program type of the candidate influenced acceptability for employment was statistically and practically supported. In fact, a statistically significant overall $\chi^2$ (4, n=302) = 97.21, p<.00001 was obtained with a moderate level of practical significance ($\underline{Vc}$ = .40) (Fallik & Brown, 1983). In other words, it was not likely due to chance that there were differences in the preference patterns of intern selectors and the relationship between doctoral program type and acceptability for employment was tenable.

Clarification of patterns within the matrix occurred via the method of inspection and a standardized residual analysis (Hays, 1994). Both procedures clearly indicated a demonstrated pattern of greater acceptance for students from clinical programs first and counseling programs second. Students from school programs were most often rejected. The findings were so pervasive that they were consistent across a variety of rater characteristics and site variables.

Although these patterns were consistent with previous non-empirical discussions (e.g., Dahbany, 1994; Gayer & Gridley, 1995) and survey research which indicated that applicants from clinical programs were most often, and from school programs least often, considered or offered internships (Eggert et al., 1987; Kurz et al., 1982; Sturgis et al., 1980), they are the first experimentally derived results which have dealt with the intern selection process. The sheer magnitude of the preference patterns, indicated that, in

general, intern selectors are not screening candidates on individual materials but rather on some other group-based judgment heuristic. This heuristic is likely to be that clinical psychology students are more suited than counseling and, especially, school psychology students to clinical internships. However, there is no empirical validity to these heuristics at this time.

Therefore, until further research is conducted which causes researchers to conclude that there are significantly different outcomes for pre-internship students across APA accredited doctoral program types (i.e., clinical>counseling>school) which mirror preference patterns obtained in the present study, it can be stated with some certainty that a selection bias based on doctoral program type is in effect in at least the screening part of the intern selection process. In addition to the literature which fostered the need to substantiate hypotheses relating to selection biases (e.g., Gayer & Gridley, 1995), these conclusions can be drawn because of the current study's experimental methodology, adequate sampling, and unequivocal results.

Until further outcome-based research is conducted, however, the results from this study should not discourage applicants from counseling and school programs from continuing to send applications to APPIC member internships. On the contrary, the results can also be looked at as encouraging for applicants from these two programs. In fact, a majority of applicants from counseling programs and approximately two-thirds of applicants from school programs were accepted and held, in other words given strong consideration, as potentially employable interns.

However, given the shrinking supply of internship positions in relation to increasing numbers of applicants and the now documented presence of selection bias,

future applicants from counseling and, especially, school psychology doctoral programs should prepare themselves well with a full array of clinical experiences, scholarly endeavors, and, perhaps, interview techniques before seeking a clinical internship. Internship trainers, on the other hand, should become more acutely aware of what biases they may bring to the selection process and attempt to moderate them. At the institutional level, strides must be taken to counteract biases. This could occur through: (a) developing instrumentation capable of more precisely measuring outcomes for pre-internship students (e.g., downwardly extending state and national examinations for professional psychology licensure), (b) using this instrumentation to provide help to internship selection committees in making the intern selection process more systematic, and (c) creating equitable internship opportunities for students from school and counseling programs. If steps such as these are taken, the issue of selection bias may be rendered a mute point.

Based upon the findings of this study, further research would appear warranted. The following recommendations are offered:

1. Develop instrumentation that reliably and validly measures pre-internship training outcomes of pre-internship psychology students in terms of knowledge and skills.
2. After satisfactory instrumentation has been developed, compare students across programs to see if preferences patterns found in the current study are empirically justifiable.
3. Incorporate experimental methodologies to study the potentially interactive effects of other variables such as APA accreditation status of a candidate's doctoral program,

other types of doctoral programs (i.e., professional psychology programs), gender, race, etc. on the intern selection process.

4. Examine and compare attitudes of random samples of applied psychologists as they relate to the employment of applied psychologists trained in similar and different doctoral program types to determine if there is corroboration of the findings from this study that training program similarity influences employment decisions.

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# APPENDICES

APPENDIX A
COVER LETTER

327 Windsor Ct.
Cherry Hill, NJ 08002

June 20, 1995

Mailing address

Dear

The selection process undertaken by professional psychology internship selection committees, as well as the application procedure for students seeking positions, are both difficult, demanding tasks for the respective parties. The entire process of internship placement has been described as a tense and anxiety-producing experience. The tension could be reduced for both parties if greater knowledge about the factors underlying the process were brought to light. However, little of this information is currently available.

You have been selected to be part of an investigation into these matters. In order that the results will truly represent the thinking of the directors and/or selection committee members of accredited predoctoral psychology internships, it is important that each survey be completed and returned. If you are unable to complete this voluntary survey, please forward it to another member of your intern selection committee for completion.

The task/survey you are asked to complete is simple and requires minimal time (approximately 10 minutes). You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

You may receive a summary of results by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it. Please do not put this information on the questionnaire itself.

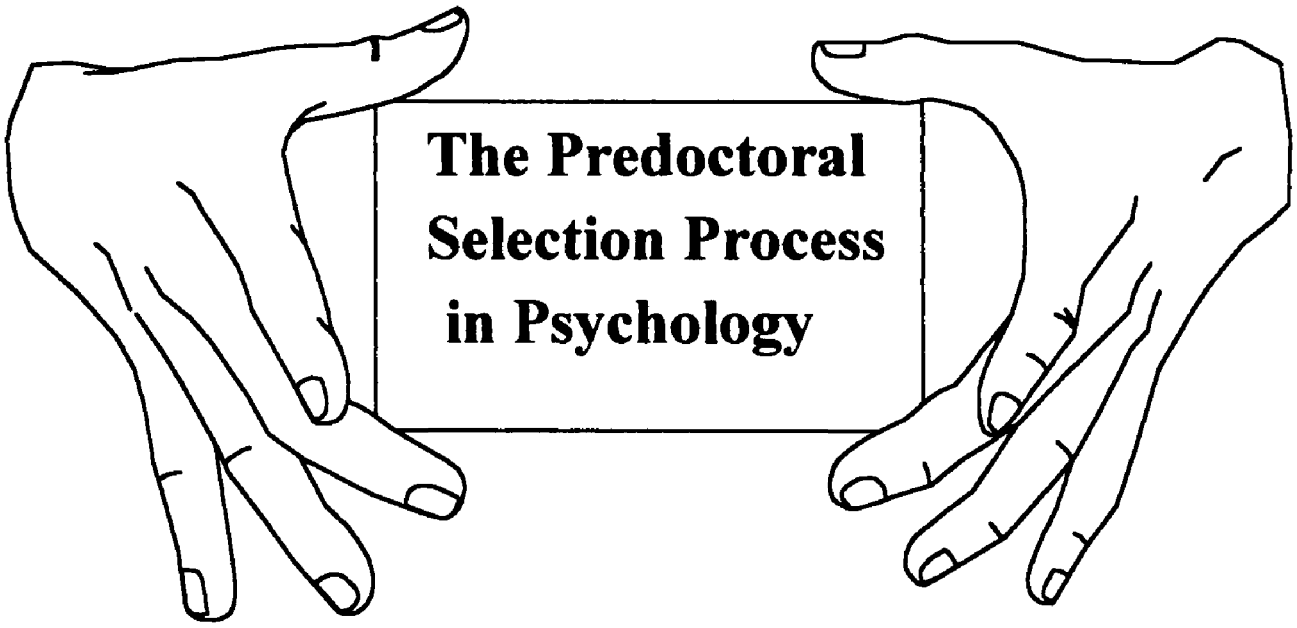
I would be most happy to answer any questions you might have. Please write or call (317) 285-8500. Thank you for your assistance.

Sincerely,

Harvey L. Gayer, M.A.
Doctoral Candidate
Project Director

Betty E. Gridley, Ph.D.
Professor
Faculty Supervisor

APPENDIX B
FRONT COVER OF BOOKLET




This survey is designed to help better understand the intern selection process. Please systematically carry out the following:

1. Review the brief enclosed application materials and answer the single applicant feasibility question.
2. Complete the short demographic questionnaire.
3. Return the full questionnaire in the enclosed, self-addressed, stamped envelope.

Thank you for your help.

Harvey L. Gayer
327 Windsor Ct.
Cherry Hill, NJ 08002

APPENDIX C

## INTERNSHIP APPLICATION MATERIALS

1. **Name:** Predoctoral Applicant

2. **Doctoral Training Information:** ***CLINICAL PSYCHOLOGY Ph.D. PROGRAM***
1992-Present
Expected Graduation Date-May,1996
Respected University (APA-accredited)
Area of Specialization-Psychopathology
Cumulative Graduate G.P.A.- 3.82

3. **Other Graduate Training:** M.A. General Psychology
1990 - 1992
Respected University

4. **Doctoral Requirements:** Current and anticipated status at beginning of internship (C - Completed; P - In Progress; Blank - Not yet begun)

| | *Now* | *Beginning of Internship* |
|---|---|---|
| A. Dissertation | | |
| i. working on proposal | P | C |
| ii. proposal approved | P | C |
| iii. data collected | - | P |
| iv. dissertation completed | - | P |
| B. All doctoral program coursework | P | C |
| C. Comprehensive exams | C | C |

5. **Previous Clinically-Supervised Experience**

*Psychology Trainee* June 1994 to Present
Community Mental Health Center
University City, USA

Duties: Outpatient based assessment and therapy with adult, adolescent and child populations. Client population includes a variety of developmental, anxiety, mood, personality, and organic disorders. Complete assessments performed for learning disabilities, neuropsychological, attention deficit hyperactivity and personality disorders. Therapy experience includes group, family, and individual using an eclectic approach.

Supervisor: Sally Stern, Ph.D., ABPP

*Psychology Trainee* June 1993 to May 1994
State Hospital
Central City, USA

Duties: Inpatient based assessment and therapy with a diverse, life-span population. Responsibilities include screening admissions using objective and projective devices; intellectual and personality testing as requested by resident psychiatrists; and leading anger management groups (10 hours per week, 480 hours total)

Supervisors: Henry Harris, Ph.D. and Mary Martinson, Ph.D.

*Psychology Trainee* June, 1992 to May, 1993
Respected University
Campus Psychology Clinic

Duties: Individual, family and group therapy involving clients with wide variety of presenting problems (including child management, marital issues, social skill deficits, low self-esteem, substance abuse, depression, stress management, impulse and anger control, and learning disabilities). Assessments for learning disabilities, attention deficit hyperactivity disorder, behavior problems and emotional problems (10 hours per week for 48 weeks = 480 hours total)

Supervisor: Julie Jensen, Ph.D.

Total hours of supervised clinical experience = 1460

6. **Approximate number of individually administered and interpreted psychological test protocols:**

| | Children | Adolescents | Adults |
|---|---|---|---|
| Intellectual[1] | 15 | 20 | 12 |
| Achievement[2] | 15 | 18 | 10 |
| Objective Personality[3] | 15 | 18 | 12 |
| Projective Personality[4] | 15 | 18 | 12 |
| Neuropsychological[5] | 6 | 10 | 8 |

[1] includes WISC-III, WAIS-R, Stanford-Binet 4th Ed., WJ-Cog
[2] includes WRAT-3, WJ-R, PIAT-R
[3] includes MMPI (2 & A), MAPI-MACI, MCMI-III, PIC, Suicidal Ideation Scales
[4] includes Rorschach (Exner Systems), TAT, CAT, Sentence Completion
[5] includes Halstead Reitan, Luria-Nebraska

7. **Description of Practica**:

Practicum in Assessment 3 credits/250 clock hours
*Directed experiences in diagnostic procedures, reports, writing, and the communication of test results to clients, parents, and professional personnel.*

Practicum in Consultation 3 credits/250 clock hours
*Supervised application of theoretical approaches to psychological consultation. Emphasis on the consultant-consultee relationship in behavioral, process, developmental, triadic, organizational, and eclectic models of consultation.*

Practicum in Counseling 6 credits/250 clock hours
*Supervised experience in individual and family counseling and in a leadership role for therapeutic group interaction.*

8. **Academic Background (basic graduate level psychology and clinical courses)**

*Basic Psychology Courses:*
Experimental Psychology, Physiological Psychology, Research Design and Methods, Statistics (Basic and Advanced), Comparative Psychology, Learning, Perception, Developmental Psychology, Social Psychology, Personality.

*Clinical Courses:*
Intellectual Assessment, Personality Assessment, Projective Techniques, Community Psychology, Abnormal Psychology, Psychotherapy, Psychopharmacology, Theories and Techniques of Counseling, Multicultural Counseling.

9. **Research**

Departmental Committee Participant (May, 1992 to Present)
Evaluating and designing clinical research, writing grant proposals, and abstracting current studies for departmental newsletter.

Doctoral Assistant (August, 1993 - July, 1994)
Aided psychology professor specializing in research, developed computer skills (SAS, SPSS, and BMDP). Studies focused on construct validity of psychological measures of intelligence.

10. **Publications and Presentations**

Harvey, G. L., & Applicant, P. D. (1994). Construct bias in frequently used measures of intelligence. Psychometric Assessment, 6, 53-59.

Julie, G. E., & Applicant, P. D. (1995, August). Environmental influences on low incidence syndromes. Paper accepted for presentation at the annual meeting of the American Psychological Association, New York, NY.

Under Submission

Julie, G. E., & Applicant, P. D. Is it Attention Deficit Hyperactivity Disorder, Tourette's Syndrome and/or Obsessive-Compulsive Disorder? Chatper to appear in M. Martinson & C. Jones (Eds.), Comorbidity of DMS-IV diagnoses. To be published by the Respected University Press.

11. **Teaching Experience**

*General Psychology* June, 1993 to Present
Freshman Sophomore Level Course
Department of Psychology
Respected University

Duties: Responsible for all phases of teaching including the preparation and administration of lectures, selection of reading materials and assignmenta, construction of examinations, and the assignment of course grades.

12. **References**

Geoff E. Julie, Ph.D.
Professor of Psychology
Psychology Department
Respected University
University City, USA 90009

Mary Martinson, Ph.D.
Supervising Psychologist
Central City State Hospital
University City, USA 90009

Sally Stern, Ph.D., HSPP
Director of Training
Community Mental Health Center
180 N. Valleybrook Rd.
University City, USA 90009

Henry Harris, Ph. D.
Director of Clinical Training
Central City State Hospital
University City, USA 90009

13. **Statement of Internship Readiness (taken from letter)**

"As Director of this prospective predoctoral applicant's doctoral training program in Clinical Psychology, I attest to the readiness of this candidate. I believe this candidate will be an effective intern who will be able to meet the presented challenges."

APPENDIX D

## APPLICANT FEASIBILITY

Q-1 Following your review of the enclosed applicant's materials, please indicate how you would rank the applicant for an internship position at your facility (Circle number)

1 ACCEPT
2 HOLD
3 REJECT

## DEMOGRAPHIC QUESTIONNAIRE

Now we would like to learn more about who you are, what you do, and what your setting is like, so that we may be able to see what patterns exist among internship selection committee directors/members and internship sites in this country.

Q-2 What is your position on the predoctoral internship selection committee? (Circle number)

1 DIRECTOR
2 MEMBER
3 OTHER (SPECIFY)_____

Q-3 What is your gender? (Circle number)

1 MALE
2 FEMALE

Q-4 What was your age at your last birthday? _____ years

Q-5 The highest degree you now hold is: (Circle number)

1 MASTERS
2 PROFESSIONAL DIPLOMA
3 PH.D.
4 PSY.D.
5 ED.D.
6. OTHER (SPECIFY) _____

Q-6 The type of program you were in was: (Circle number)

1 CLINICAL PSYCHOLOGY
2 COUNSELING PSYCHOLOGY
3 SCHOOL PSYCHOLOGY
4 OTHER (SPECIFY) _____

Q-7 The year this degree was granted; 19___

Q-8 How many years' experience do you have in your current position? _____ years

Q-9 In which setting do you currently work? (Circle the best description)

1 CLINIC
2 COMMUNITY MENTAL HEALTH CENTER
3 CORRECTIONAL
4 HOSPITAL
5 PRIVATE PRACTICE
6 SCHOOL
7 RESIDENTIAL
8 UNIVERSITY
9 OTHER (SPECIFY) _____

Q-10 What is the population density of the area in which you work? (Circle number)

1 RURAL
2 SMALL TOWN
3 SUBURBAN
4 URBAN

Q-11 What is the socioeconomic status of your client population, primarily (i.e. over 50%)? (Circle number)

1 UPPER INCOME
2 MIDDLE INCOME
3 LOWER INCOME
4 I DO NOT WORK WITH ANY OF THESE GROUPS AS MUCH AS 50% OF THE TIME

Q-12 Please estimate what percentage of your interns' time is spent with, or focused on, each of the following age groups. (If you hold more than one job, give a combined estimation).

___ % INFANTS, TODDLERS AND PRESCHOOL (0-5 YEARS)
___ % MIDDLE CHILDHOOD AND PRE-ADOLESCENTS (6-12 YEARS)
___ % ADOLESCENTS AND YOUNG ADULTS (12-22 YEARS)
___ % ADULTS (23 + years)
___ % ENTIRE FAMILIES

Thank you for completing this questionnaire.

APPENDIX E
BACK COVER OF BOOKLET

Is there anything else you would like to tell us about the intern selection process? If so, please use this space for that purpose.

Also, any comments you wish to make that you think may help us in future efforts to understand what directors of internships and/or intern selection committee members want to know about the selection process will be appreciated. Please place your comments here or in a separate letter.

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*Your contribution to this effort is greatly appreciated. If you would like a summary of results, please print your name and address on the back of the return envelope (NOT on the back of the questionnaire). We will see that you get it.*

APPENDIX F
TEXT OF POSTCARD FOLLOW-UP

June 27, 1995

Last week an experimental survey seeking your rating of a prospective predoctoral intern and demographic information was mailed to you. You or another member of your site's intern selection committee was chosen to participate in this study because you are involved in the important process of selecting psychology interns.

If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so today. Because of the limited amount of internship sites, it is extremely important that your site be included in the study if the results are to accurately represent the opinions of those who select interns.

If by some chance you did not receive the survey booklet or SASE, or either was misplaced, please call us right now, collect (317-287-8714), and we will get another one in the mail to you today.

Sincerely,

Harvey L. Gayer, M.A.
Doctoral Candidate
Project Director

Betty E. Gridley, Ph.D.
Professor
Faculty Supervisor

APPENDIX G
SECOND FOLLOW-UP LETTER

327 Windsor Ct.
Cherry Hill, NJ 08002

July 11, 1995

Mailing Address

Dear

About three weeks ago, we wrote to you seeking your rating of a prospective predoctoral intern and some demographic information. As of today we still await your completed survey.

Our research unit has undertaken this study because of the belief that the intern selection process is not only difficult and time consuming, but not well understood. Your input is critical in helping us to gain an understanding of the intern selection process and, thus, decrease its inherent problems.

We are writing to you again because of the significance each survey has to the usefulness of this study. Because there are a limited number of intern sites, only 534 people are being asked to complete this questionnaire. In order for the results of this study to be truly representative of the opinions of all internship directors and selection committee members, it is essential that you return your questionnaire. The questionnaire from your internship site may be completed by you or a member of the intern selection committee.

In the event that your questionnaire has been misplaced, a replacement is enclosed. Your cooperation is greatly appreciated.

Sincerely,

Harvey L. Gayer, M.A.
Doctoral Candidate
Project Director

Betty E. Gridley, Ph.D.
Professor
Faculty Supervisor

enc.

# APPENDIX H
# SUMMARY OF RESULTS

Teachers College-518
Dept. of Educational Psychology
Ball State University
Munice, IN 47306

November 14 , 1995

Dear Internship Training Director/Staff Member,

We are writing to you for two reasons. First, we would like to extend our sincere appreciation for your summer participation in our analogue research study entitled "Differential Perceptions of Prospective Predoctoral Interns: An Experimental Investigation of Potential Bias in Selection". Second, we would like to provide you with a synopsis of the study's results, that you requested.

In this study, we aimed to determine how doctoral program type (clinical, counseling, or school psychology) affects the likelihood for acceptance to internship sites. In other words, we wished to examine if, all things being equal, candidates from a particular branch of applied psychology had an advantage in the increasingly competitive internship marketplace. To accomplish these goals, we sent out identical application packets, except for the doctoral program type, to 534 of the 535 directors of 1994-1995 APPIC internships and asked for a categorical rating on the acceptability of the candidate (accept, hold, or reject). Sites were randomly divided into thirds, with each third receiving either clinical, counseling, or school applications.

A 63% response rate was obtained with 58% usable replies. Frequency counts were inserted into a 3 x 3 matrix (program type x acceptability) and submitted to an overall Chi-Square analysis. Cramer's $\phi$ statistic, analagous to Pearson $r$, was utilized as a measure of association for the two variables. The results were statistically significant $\chi^2$ (4, $N$ = 302) = 97.21, $p < .00001$. Moreover, the relationship between acceptability for employment and doctoral program type was $\phi = .40$. Finally, matrix trends revealed a distinct pattern of greater acceptability for applicants from clinical programs. Applicants from counseling program were the second most acceptable and applicants from school psychology programs were least acceptable.

Although the analogue nature of the study has inherent limitations, the results point to the strong influence of doctoral program type in, at least, the screening process for psychology interns. The findings are especially noteworthy given the long standing, and unresolved, debate as to whether there are, indeed, significant differences between the training of applied psychology doctoral programs. Further discussion of the results, and of their implications for the field, will appear in the future publication of this study. It is to be submitted to an APA-sponsored journal. If you wish to discuss the findings or further clarification, please contact the project director during work hours at 610-270-1581 or through electronic mail (Gayer53@aol.com). We thank you once more for your time and effort.

Sincerely,

Harvey L. Gayer, M.A.
Project Director

Betty E. Gridley, Ph.D
Faculty Supervisor

Ball State University

Academic Affairs
Office of Academic Research and Sponsored Programs

***INSTITUTIONAL REVIEW BOARD***

TO: Harvey L. Gayer
3476 N. Tillotson Ave. #1
Muncie, IN 47304

Betty E. Gridley
Educational Psychology

FROM: Anthony Mahon, Chair
Institutional Review Board

DATE: June 15, 1995

RE: Human Subjects Protocol I.D. - IRB #95-254

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Your protocol entitled "Differential Perceptions of Prospective Predoctoral Psychology Interns: An Experimental Investigation Of Potential Bias in Selection" has recently been approved as an exempt study by the Institutional Review Board. Such approval is in force during the project dates 6/15/95 to 12/31/95.

It is the responsibility of the P.I. and/or faculty supervisor to inform the IRB:

- when the project is completed, or
- if the project is to be extended beyond the approved end date,
- if the project is modified,
- if the project encounters problems,
- if the project is discontinued.

Any of the above notifications should be addressed in writing to the Institutional Review Board, c/o the Office of Academic Research & Sponsored Programs (2100 Riverside Avenue). Please reference the above identification number in any communication to the IRB regarding this project. Be sure to allow sufficient time for extended approvals.

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