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A Normative Analysis of Psychological Test Results of Students Selecting Graduate Counselor Education

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A NORMATIVE ANALYSIS OF PSYCHOLOGICAL
TEST RESULTS OF STUDENTS SELECTING
GRADUATE COUNSELOR EDUCATION

by

Buena Flor H. Mendoza

A Project Report
Submitted to the
Faculty of the School of Graduate
Studies in partial fulfillment
of the
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TABLE OF CONTENTS

ACKNOWLEDGMENT	ii
LIST OF TABLES.....	iv
LIST OF FIGURES	v
CHAPTER	
I	THE PROBLEM
	1
	The Problem, Its Background.....
	3
	Statement of the Problem.....
	4
	Delimitations of the Study.....
	4
	Importance of the Study.....
	5
	Assumptions.....
	6
	Definition of Terms.....
	7
	The Hypotheses.....
	8
II	REVIEW OF SELECTED READINGS AND RELATED
	STUDIES.....
	9
	Open-mindedness.....
	10
	Tolerance of Ambiguity.....
	13
	General Mental Health and Interest.....
	16
	Summary.....
	20
III	DESIGN AND METHODOLOGY.....
	22
	The Sample.....
	22
	Procedures.....
	22
	Null Hypotheses.....
	24
	Instrumentation.....
	25
	Results and Analysis of Data.....
	26
IV.	SUMMARY AND CONCLUSIONS, DISCUSSION AND
	RECOMMENDATIONS.....
	46
	Summary and Conclusions.....
	46
	Discussion.....
	49
	Recommendations.....
	53
BIBLIOGRAPHY.....	55
APPENDICES.....	62

LIST OF TABLES

TABLE		PAGE
3.1	Mean Scores, Standard Deviations, Standard Errors of the Means, and the Critical Ratio Results for the <u>Rokeach Dogmatism Scale</u> and the <u>Berkeley Public Opinion Questionnaire</u>	27
3.2	Critical Ratios of Paired Mean (Interpolated) Scores of Counselor Candidates and the Normative Non-Counselor Samples.....	28
3.3	Correlation Scores, PEr and "t" Values of the <u>Rokeach Dogmatism Scale</u> and the <u>Berkeley Public Opinion Questionnaire</u>	30
3.4	Mean Scores, Standard Deviations, and Standard Errors of the Means, and the Critical Ratios of Paired Male and Female Norms (MMPI).....	34
3.5	Critical Ratios of Paired Mean Scores of Normative and Counselor Candidate Groups (MMPI).....	35
3.6	Mean Raw Scores and Mean T Scores for 106 Male Counselor Candidates; 65 Male College Counselors; and 22 Counselor Trainees, Compared with Male Normative Samples on the MMPI.....	37
3.7	Correlation Results, PEr and "t" Values of the MMPI Scales.....	41
3.8	Mean Scores, Standard Deviations and Standard Errors of Mean Measurements Together With the Critical Ratios Between Male and Female Counselor Candidates on the SVIB.....	42
3.9	Intercorrelation Results of Occupational Groups I, V, IX and the Non-Occupational Scales on the SVIB (Total Group).....	44

LIST OF FIGURES

FIGURES	PAGE
3.1 <u>Comparative T Scores for the Rokeach Dogmatism Scale and the Berkeley Public Opinion Questionnaire..</u>	31
3.2 <u>Graphical Presentation of Frequency Distribution of Scores of the Rokeach Dogmatism Scale and the Berkeley Public Opinion Questionnaire.....</u>	32
3.3 <u>MMPI Mean Clinical Profile for Male Counselor Candidates.....</u>	39
3.4 <u>MMPI Mean Clinical Profile for Female Counselor Candidates.....</u>	40

CHAPTER I

THE PROBLEM

Selection of candidates for counselor education is a critical concern of training institutions. The welfare of the prospective trainee, of the public and the profession, together with the limitation of training facilities, necessitate careful selection of counselor candidates. Thus, counselor educators must select students who are intellectually able, professionally motivated, emotionally and socially mature (APA, 1958) and who are able to sustain intimate interpersonal relationships enriched by their experiences (Hill, 1961). As such, selection has become an integral and important aspect of a large and comprehensive campaign to make the counseling profession a truly effective instrument of educational progress.

The professional literature includes many hypotheses regarding personal competencies needed by guidance and personnel workers (APGA, 1957; APGA, 1964; McCreary, 1957; Warmath, 1956; Williamson, 1958; Brammer and Shostrom, 1960). Other studies have reported on the characteristics and status of counselors-in-training and guidance workers in-service (Abeles, 1958; Hoffman, 1959; Snyder, 1955; Patterson, 1960; Kazienko and Neidt, 1962). These studies however, have not delineated specific criteria for the selection of counselors except for academic skills known to be required to complete the required graduate preparation--thus making the

selection problem not only difficult but more challenging.

The problem of selection of counselor candidates is infinitely complex, since it has been established that men and women of a wide variety of personality types can function successfully in counseling situations (Fiedler, 1950b; Strupp, 1955; 1960; Wolfe, 1960; Murphy, 1961; Williamson, 1962; Wrenn, 1962). Thus, counseling is an intensely personal activity and there seems little promise in striving for specific "blue print" of counselor qualifications; perhaps it would be safe to assume that any personality pattern which permits the development of rich and deep relationships with other people is satisfactory. Basic to these qualities would be attitudes that make it possible to accept and understand others. In this regard, a minimum level of emotional stability would be necessary (Tyler, 1962).

Weitz (1961) speculates that three traits, basic to emotional stability are essential: (1) security, to the extent that it permits a sense of self-acceptance, frankness and openness with serenity; (2) sensitivity, as it involves the capability of generalizing one's feelings of self-acceptance to the acceptance of other people and the capability of understanding and appreciating a wide range of psychological behavior; and (3) objectivity, which enables a person to distinguish between objective and symbolic behavior, yet understanding of the intimate relationship between the two.

While it is recognized that the assessment of emotional stability using presently available instruments is a difficult task, present instrumentation does permit personality assessment and predictive hypotheses to be generated with a degree of certainty greater than chance.

The Problem, Its Background

Academic advisers in the Guidance and Personnel Services Unit of the School of Education at Western Michigan University, cognizant of the importance of personality in counseling, employ psychological tests as screening criteria in conjunction with other selection procedures and techniques. The battery consists of four standardized tests which produce a profile of personality characteristics and interest patterns of each student. The tests used are: the Minnesota Multiphasic Personality Inventory (MMPI), Strong Vocational Interest Blank (SVIB), Rokeach Dogmatism Scale (RDS) and the Berkeley Public Opinion Questionnaire (Berkeley POQ).

Four assumptions underlie the use of these selection criteria: (1) Counseling is far too complex to be related to any one type of counselor personality; (2) counseling is based on personal and cooperative interaction between the counselor and the counselee, and it is not likely that any counselor would be able to interact in the same way with all types of counselees; (3) the tremendous variations in the people who are going to work with them and (4)

counseling is primarily creative, and as such may be effectively conducted by widely differing but creative individuals.

Every educational endeavor must be assessed, analyzed and evaluated, in order that proper effective guidance may be given to those concerned. Available data must be subjected to research designs and their findings must be utilized. Although a considerable body of theoretical and research literature supports the use of these instruments in selecting candidates for counselor education, this study subjects the battery to research scrutiny in order to provide a basis for further decision making by the counselor education unit.

Statement of the Problem

The purpose of the study was to establish local norms for the counselor screening battery and to compare the norms to existing norms for significant differences.

In addition to the major problem, counselor personality attributes related to psychological openness, tolerance of ambiguity, personality adjustment and general mental health and interest patterns were analyzed for significant patterns.

Delimitations of the Study

The analysis and discussion in the study are limited to responses on the MMPI, SVIB, RDS, and Berkeley POQ of 171 graduate students

who sought admission into the guidance program from Spring, 1964, to Winter, 1965. The total number of cases included 106 male and 65 female counselor candidates.

Inasmuch as the sample was not randomly selected, the freedom to generalize to all counselor candidates must be questioned. It is not known whether the sample is representative, however, there is no reason to believe it is not.

Another delimitation considered in the study was the limitation in instrumentation. Inferences which may be drawn are only as valid as the MMPI, SVIB, RDS, and Berkeley POQ are valid and reliable instruments.

Importance of the Study

1. The present study will establish university norms for the standard measuring instruments used in screening applicants for counselor training at Western Michigan University.

2. Validation of the instruments used in selection of counselor candidates will be determined by group discrimination analysis.

3. Findings of the study will be used in on-going research correlating selection procedures to counseling success.

4. In addition to the foregoing, the study will have relevance to the following:

- (a) For the counselor educator, the results will be of importance in guiding the learning and training experiences of the student.

(b) For the counselor trainee, a knowledge of the personality characteristics essential to counseling success will develop an awareness for the necessity of identifying and developing traits consistent with counseling success.

(c) For the administrator, a knowledge of the analysis and evaluation results of the screening battery may provide improved guidelines for program development.

Assumptions

The basic assumptions underlying this research were:

1. There is a generic counselor personality which is operationally necessary to effective counseling relationships. This personality type specifically calls for the traits of open-mindedness, tolerance of ambiguity, emotional balance, and a wide range of interests specifically related to a general liking for people and working with them.
2. The MMPI, SVIB, RDS, and Berkeley POQ are valid and reliable standardized objective instruments for measuring specific traits of open-mindedness, tolerance of ambiguity, general mental health and vocational interests.
3. The sample studied was representative of any comparable sample selecting counselor education at Western Michigan University.
4. The norms established by the study will aid in discriminating potentially successful and potentially unsuccessful candidates

for counselor education.

Definition of Terms

For the purpose of the study, the following definitions were accepted:

Ambiguity - the quality of the stimulus characteristics of the therapist and the therapeutic task which permits clients to vary their perception and responses to the therapist as a function of their personality structure (Bordin, 1955).

Open-closed mindedness - Rokeach's (1960) definition of open-closed mindedness was accepted.

Every individual must be able to evaluate adequately both the relevant and irrelevant information he receives from every situation. This leads us to suggest a basic characteristic that defines the extent to which a person's system is open or closed--namely, the extent to which a person can receive, evaluate and act on relevant information unencumbered by irrelevant factors in the situation arising from the person or from the outside. ...The more open one's belief system, the more should evaluating and acting on one's information proceed independently on its own merits, in accord with the inner structural requirements of the situation...Also the more a person should be governed in his actions by internal self-actualizing factors and less by irrational inner forces. Consequently, the more should he be able to resist pressure to act in accordance with his wishes; the more strength should he have to resist internally imposed reinforcement or rewards and punishments. (pp. 57-58).

Attitude - a felt disposition arising from the integration of experience and innate tendencies, which disposition modifies in a general way the responses to psychological objects (Nelson, 1959).

Personality - That which permits a prediction of what a person will do in a given situation. It is concerned with all the behavior of the individual both overt and under the skin. It is concerned with a range of behavior. It refers to the integrated organized behavior of the individual which characterizes him as a unique person (Cattell, 1950). It is also used to mean the pattern of organization of personality characteristics and modes of behavior that makes an individual resemble all other persons, some other person, and no other person (Clay, 1959).

Interest - A particular disposition toward liking or disliking an event or activity. Objective interests are acceptant reactions, and objective aversions are rejection reactions (Strong, 1943).

Hypotheses¹

Phase One of the study - the establishment of university norms. Given the data, norms can be established with acceptable statistical techniques.

Phase Two - Graduate students at Western Michigan University selecting counselor education can be discriminated through the use of measures of open-mindedness, tolerance of ambiguity, general mental health and vocational interest.

¹Phase Two of the hypotheses will be reformulated in null form in Chapter Three.

CHAPTER II

REVIEW OF SELECTED READINGS AND RELATED STUDIES

There is an increasing accumulation of evidence which indicates the influence of counselor personality and attitudes on the counseling process. Most clinical and counseling psychologists accept the fact that effective counseling is related to something more than the objective techniques the therapist employs. Counseling is thought of as a dynamic process built on a relationship existing between the counselor and the counselee. Menninger (1958) commented on the importance of the relationship in psychotherapy:

In psychotherapy, the relationships between the two parties come very close to being the goal themselves. They are by no means incidental, they are not even in the strict sense of the word a vehicle for the transaction. The relationships are the most tangible elements of the transaction. Good relationship is built upon effective communication (p.22).

The studies by Fiedler (1950a; 1950b; 1951) and McGowan (1954) are representative of those which have stressed the importance of relationship in counseling, no matter what the therapist's particular orientation. Results of the studies supported the contention that ability to communicate with the client is of great importance in the establishment of a successful relationship.

Two major focal points of agreement concerning ability to communicate effectively stand out in research literature: (1) open-mindedness and (2) tolerance for ambiguity and uncertainty.

Open-Mindedness

Tyler (1962) indicates "...one particular personality characteristic generally considered more of a handicap than any other in counseling is rigidity." ...(p.247). Rogers (1962), likewise, consistently emphasized the necessity for the counselor to be:

...open to experience....to be able to be perceived as trustworthy, dependable and consistent; ...to be able to communicate unambiguously; ...to be strong enough as a person to be separate from the other and at the same time secure enough to permit the separateness and enter fully into the world of feelings and personal meanings and see things as others do; ...to ultimately be able to meet the individual as a person who is in the process of becoming....(pp. 51-55).

Wrenn pointed out that the most important element in the counseling process is the counselor and that he needs to be socially sensitive and flexible.

Allport (1960) joins these people in suggesting that the most appropriate model for representing human behavior is the open system which explicitly acknowledges the importance of the forces external to the person. In dealing further with open-mindedness, Kaplan and Singer (1963) equated the closed-minded person with the fanatic, who according to Fromm's (1962) thinking is the empty, dead depressed person who to compensate for depressed and inner deadness, chooses an ideal and submits to it in an absolute way; and the dogmatic person who reflects himself in varying types of closed-mindedness and rigidity.

Recognizing the importance of open-mindedness in the personality of the counselor, the American Personnel and Guidance Association (APGA, 1964) defined the quality of open-mindedness as basic to the personality attributes of the counselor.

The counselor has respect for a wide range of interest, attitudes and beliefs. He is willing to question the old and investigate the new. He is receptive to new ideas, achievements, and research findings. (p.537).

Three studies were reviewed which illustrated how a dogmatic personality operates in different situations.

Open-mindedness as it relates to counseling relationship was investigated by Cahoon (1962). He studied personality variables of open-mindedness, experiencing level, and the counselor's stated attitudes and orientation to counseling. His study made use of the RDS, the Experiencing Level Scale, and the Therapist Orientation Questionnaire to measure the above variables. Counselees (two for each counselor) rated 26 counselors on the basis of the interviewers' emphatic understanding, level of regard, congruence, and unconditionality of regard. Data was obtained during the fifth week of the interview. Cahoon found that the counselor's experiencing level and his degree of open-mindedness were significantly related to the counseling relationship ($p < .05$). The higher the rated experiencing level, the lower the dogmatism, and the better the relationship.

Fällénbaem and Jackson (1961) used the RDS to study the relationship between dogmatism and problem solving behavior of forty subjects. The behavior of the high and the low dogmatic persons,

as classified by the RDS, was observed in a laboratory situation that required the subjects to cope with new conceptual systems contradictory to those of everyday life. Generally consistent differences were found between highly dogmatic and low dogmatic subjects. The latter showed considerably less difficulty in integrating and synthesizing beliefs at variance with the assumptions of everyday life into new systems and were able to cope with the problems more adequately and solve them rapidly.

Dogmatism in relation to certain concepts of alienation as employed by Fromm was investigated by Kaplan and Singer (1963). They related dogmatism to sensory alienation. The RDS was used to identify high dogmatic and low dogmatic subjects, 13 from each group. Sensory discrimination tasks were performed on the subjects (pp.488-489). The low dogmatic subjects proved superior to highly dogmatic individuals to a degree which made the differences observable rather than attributable to chance. Highly dogmatic individuals exhibited significantly lower sensory acuity when compared with individuals who are relatively free of dogmatism. These investigators concluded that estrangement or alienation is markedly associated with rigidification, be this association casual, concurrent or resultant.

On the basis of the above studies, it would seem appropriate to infer that closed-mindedness and open-mindedness are not phenomena which appear in only one area of the individual's living

and not in others; on the contrary, they are pervasive phenomena. Closed-mindedness pervades not only physical experiences but objectifiable stimulations as well. Openness to experience makes it possible for a person to objectify sensory impressions, and this apparently runs parallel to openness to ideas, willingness to examine them critically, and careful analysis of thought.

Tolerance of Ambiguity

Ambiguity in the context of counseling and psychotherapy was defined in Chapter One, page seven. Using this definition as a frame of reference, ability to tolerate ambiguity is significant to any therapeutic relationship as it serves several major functions: (1) Ambiguous stimuli elicit from people those responses which are most heavily laden with the unique aspects of their life history, thus making it possible for the therapist to understand more fully and more deeply the mainspring of the client's action. (2) By being ambiguous, the therapist provides a background against which the client's irrational feelings will be more sharply etched and therefore more readily brought to awareness. (3) Ambiguity helps to insure effectiveness of a well-timed interpretation and thus leads to effectiveness in communication (Bordin, 1955).

Non-directive leads result in a higher degree of ambiguity than directive leads, a reason why non-directiveness is closely associated with tolerance of ambiguity. Non-directiveness means

in part "not defining or imposing one's own values on the client and avoiding directive leads in the counseling relationship" (Williamson, 1962, p. 109). Directive leads seem to demand the client to talk about a very specific topic in restricted terms, as contrasted with a non-directive lead which is a more general invitation to communicate (Rogers, 1962).

Intolerance of ambiguity is also often logically linked with closed-mindedness. According to Frenkel-Brunswik (1949), it is interrelated with emotional ambivalence and rigidity. Brams (1957) indicates "...counselors without tolerance of ambiguity would not be effective in counseling as would those with ambiguity tolerance" (p.26). Bordin (1955) emphasized the importance of ambiguity tolerance on the part of the counselor because the ambiguous character of the counseling relationship could be threatening. Finechel (1941) specified that intensity of the transference in a counseling relationship will be a function of the duration and degree of the ambiguous aspects of the relationship.

Three recent studies related to tolerance of ambiguity and counselor behavior were reviewed.

Reiwald (1964) studied the relationship between counselor tolerance of ambiguity and his behavior in the counseling interview. He investigated whether counselors differentiated on a test continuum of tolerance-intolerance of ambiguity would demonstrate concomitant variation of behavior in the counseling interview. Two

objective tests of ambiguity tolerance, the Figure Recognition and the Verbal Reasoning Tests, were used as independent variables. Dependent variables involved four aspects of counselor behavior which were transcribed into a typescript and read by two judges who counted counselor responses to clients on a first taped interview. The subjects were 23 beginning counselors enrolled in counseling practicum at Wayne State University. The study revealed that counselors intolerant of ambiguity behaved in a very controlling way. They used responses which initiated, interrupted or changed the client's topic of conversation. They focused on cognitive material and were highly expressive of value judgment. The findings were significantly related to the original conception of intolerant behavior by Frenkel-Brunswik (1949).

Jones (1961) found some correlates of the authoritarian personality in quasi-therapeutic situations. Sixty undergraduate students in psychology were given the California F Scale (Adorno, et. al., 1950). Before they were given the Gough Adjective Test, these students were made to observe therapeutic interviews through a one way vision screen. He found that the high F group consistently demonstrated more rejecting attitudes toward patients as evidenced by descriptive terminology and overt expression of attitude on the Gough Adjective Test. An analysis of communication to the patients revealed a tendency on the part of the authoritarian to structure the role of the therapist into a directive advice-giving role. The

authoritarians assumed directive judgment roles as therapists and would display less warmth and empathy than the non-authoritarians.

In an experimental study comparing effectiveness in counseling situations with various personality and interest measurements, Brams' (1957) findings supported the theoretical construct that significant relationship exists between tolerance of ambiguity and effectiveness of communication. His subjects were 27 graduate students, 22 males and five females, who were drawn from two semesters of a counseling practicum course at the University of Missouri. The Berkeley POQ was used to measure ambiguity tolerance, which when compared with the criterion concluded a relationship that the two variables are significantly correlated.

General Mental Health and Interest

Several writers (Cox, 1954; Jones, 1951; Wrenn, 1952; Patterson, 1962) have suggested lists of characteristics of the ideal counselor, but Cottle (1957) has pointed out that most of these characteristics were drawn from studies concerned with subjective judgments, with little attempt made to secure objectivity in the listing of personality characteristics of counselors.

There is common agreement, however, among all these writers that personal adjustment and interest are among the characteristics that are ideally desired. Attempts to objectify these characteristics empirically have been made through the use of standardized objective

instruments of acceptable validity and reliability. The MMPI and the SVIB are among the instruments which are most widely used.

Specific efforts to relate the MMPI profile patterns to personality characteristics were made by Black (1956), Drake (1960), Guthrie (1952), Hathaway and Meehl (1955), and Mello and Guthrie (1958). Investigations relating the MMPI profile patterns to counselor behavior are found in the studies of Daane (1955), Lifton (1958), Redlo (1955), Luker (1963) and Erickson (1964).

The importance of interest in counselor selection and training is not overlooked. Interest is essentially the starting point of the educative process; effort is essential for its outcome. The education of the counselor is viewed as a process of stimulating his spontaneous interest in order to secure attention to the educative process. It is likewise aimed to secure appropriation of new ideas. Many-sidedness is a means to achieve the goals of counselor education.

The importance of interest was stressed by Hall (1911) when he said:

Did anyone ever succeed who did not love his work better than anyone else? ...he who does not love his work that it becomes play, so that he turns to it rather than anything else. ...I think that the greatest good fortune that can befall a man is to be able to make his vocation what he loves to do during his vacation. ...If there is anything you prefer to do to anything else, that way lies your calling (p.228).

Studies dealing specifically with the use of standardized inventories as a more objective approach to identification of counselor

characteristics were reviewed and are briefly summarized.

Hamrim and Paulson (1950) reported a doctoral study by Brown (1946) at Northwestern University. Brown's investigation involved 42 counselors, 19 males and 23 females, to whom he administered the SVIB. Both groups showed a high interest in occupations dealing with people as individuals and as members of groups. A secondary pattern in business was also indicated.

Kriedt (1949) administered the SVIB to 1048 male psychologists selected from the 1948 American Psychologist Association Directory, 115 of whom were classified as guidance psychologists. He found a rank order correlation of .77 between profiles for all 1948 psychologists against guidance psychologists on the SVIB. Guidance psychologists were found to deviate in the social service direction and they have a low A mean score in the psychologist key. Guidance psychologists seem to have a stronger preference than others (industrial, clinical, experimental) for interviewing, service to others, personnel work and writing.

Wrenn (1950) used the Miller Analogies Test (MAT), MMPI, SVIB Allport-Vernon-Lindzey Study of Values and the Guilford Zimmerman Temperament Survey (GZTS) with a sample of 30 graduate level counselor trainees. His study reported: (1) a median score on the MAT in the middle seventies; (2) a highest rating on the theoretical and religious scales on the Allport-Vernon-Lindzey Study of Values, with lowest in aesthetic for men and economic scales

for women; (3) median scores above the 75th percentile for men and 90th percentile for women in the GZTS scales for restraint, emotional stability, friendliness, objectivity and personal relations. The median on other scales ranged from 30th to 70th percentile; and, (4) the infrequency of elevation for the Hs, D, and Si scales of the MMPI which was strikingly observable.

Cottle and Lewis (1954) attempted to collect objective evidences in the form of profiles of mean scores and also arrays of items which differentiate counselors on standardized tests in the same way that different kinds of psychologists have been differentiated on the interest inventories such as the SVIB. Using the MMPI and the GZTS with counselors, they explored the problem of securing a pool of items characteristic of counselors by contrasting the answers of the male counselors in college counseling bureaus with those of male college students. The college counselor sample numbered 65; the college male sample included all of the male college students with relatively normal scores on the two tests as counselees in the University of Kansas Guidance Bureau.

Their findings showed statistically significant lower raw score differences in favor of counselors on HS, Pt, Sc, and Ma scales before the K correction was added. The K correction gave the counselors lower lie score, a high K score, a lower Ma score and a more extroverted Si. Statistically significant differences exist on the GZTS for scales R S E F P and M with the counselors securing the higher or better adjusted mean score.

Arbuckle (1958) in the study of trainees who had either been chosen or rejected by their fellows as potential counselors found significant differences on the MMPI, the Heston and the Kuder. Those who were accepted, when compared with those who were not accepted tended to show more normal scores on several scales of the MMPI, and a high degree of interest in such areas as social service, persuasive, literary, and scientific fields.

Summary

In the light of the above data, it seems obvious that most attempts to evaluate the personality characteristics of counselors are sporadic and unrelated. The above studies seem to draw profiles of various kinds and levels which vary considerably for the counselor personality. This seems to agree with the contention made earlier in Chapter One that it is difficult to come up with specific "blue print" of the right type of qualifications ideal for a counselor. A "blue print" of a counselor personality seems very difficult, if not impossible to attain; however, generic guidelines are feasible within the scope of our present knowledge and research evidence.

CHAPTER III

DESIGN AND METHODOLOGY

The design and methods used in the study are described under five headings: (1) The Sample; (2) Procedure; (3) Instrumentation; (4) Hypotheses; and (5) Results and Analysis of Data.

The Sample

The sample selected for the study consisted of 171 counselor candidates at Western Michigan University, who took the screening test battery consisting of the Minnesota Multiphasic Personality Inventory, (MMPI), Strong Vocational Interest Blank (SVIB) Rokeach Dogmatism Scale (RDS), and the Berkeley Public Opinion Questionnaire (Berkeley POQ) from Spring Term, 1964 to Winter Term, 1965. The sample was not randomly chosen and whether or not they were a representative trainee group is not statistically known. However, for a normative analysis of responses on the psychological tests and for purposes of the study, it was assumed that this group approximates any randomly selected group of professional counselor trainees matriculating at the university.

Procedure

Using the test resources and files of the Guidance and Personnel Services Unit as the main source of information, complete test data

for 171 cases was acquired. These data were recorded and scores were prepared for analytical study. The total group was divided into male and female sub-groups. Separate computations of scores were made for each sex group before the total group computation and analysis of scores were undertaken.

Mean scores, standard deviations and standard errors of mean measurements were calculated. The average performances in each test scale and test sub-scales were defined by the mean data obtained; variability of scores was defined by the size of the standard deviations; and the reliability of obtained measures, by their standard errors.

Differences observable in mean measures of male and female counselor candidates were tested to determine whether or not such differences were real or attributed to chance. Mean differences observed to be present between counselor candidates and other non-counselor samples were also tested. Testing of statistical significances of mean differences involved the computations of the critical ratios.

For the SVIB, patterns of interests were analyzed by the system proposed by Stephenson (1961) which enumerates all possible combinations of scores on the SVIB profile sheets for primaries and secondaries and for rejects in all eleven interest groups. A primary profile consists of a majority of scores in the A and B score ranges; a secondary profile in the B score ranges; and rejects in the C score

ranges. Scores in the A and B+ ranges indicate a high degree of similarity between a subject interest and the interests of men successfully engaged in the occupations in question.

A correlational analysis of scores was made between the RDS and the Berkeley POQ. The aim was to find out how independent each scale is of the other in measuring specific traits of open-mindedness and tolerance of ambiguity.

Intercorrelations were also run for the clinical scales of the MMPI with the purpose of finding out how precisely each scale measures distinct clinical traits of personality. An intercorrelational study was also made between the occupational Groups I and V of the SVIB; between these variables and occupational Group IX and the non-occupational scales of the inventory. The intercorrelations made on the SVIB indicated how scientific and professional interest patterns relate to interest in people; and, how these two patterns of interest would relate to tasks involving business and administrative concern, to maturity, specialization and occupational levels, and to masculinity and femininity of interest.

The Pearson Product Moment Method was employed in the correlational phase of the study. Correlation results must be statistically significant to be of true value for establishing relationships and for predictive purposes. The significances of the correlation results were tested against their probable errors (Guilford, 1950) and by computing the t values of each obtained r with the

t's to be expected by chance at the .05 and .01 levels of confidence (Garrett, 1949). In the study, the .01 level of confidence was accepted.

Findings were reported in Tables 3.1 and 3.9 and statistical data were interpreted and analyzed.

The Null Hypotheses

The general hypotheses of the study were stated in Chapter One on page eight. The following hypotheses are null reformulations of the general hypothesis of Phase Two of the investigation:

Hypothesis 2.11 No significant difference exists between counselor candidates and other non-counselor groups (normative samples) in psychological openness as measured by the RDS and tolerance of ambiguity as assessed by the Berkeley POQ.

Hypothesis 2.12 Male and female counselor candidates are not significantly different in psychological openness and tolerance of ambiguity as indicated by the RDS and the Berkeley POQ.

Hypothesis 2.13 Dogmatism and psychological openness as measured by the RDS and tolerance of ambiguity as measured by the Berkeley POQ are essentially not related.

Hypothesis 2.21 No significant difference exists between counselor candidates and the normal male and female adults in general mental health as assessed by the MMPI clinical scales.

Hypothesis 2.22 The MMPI mean profiles of the male and female counselor candidates are not significantly different.

Hypothesis 2.23 The MMPI clinical scales measure specific clinical personality traits and are not interrelated.

Hypothesis 2.31 No significant differences exist between counselor candidates and other normative groups in patterns of interest relative to professional and scientific and social welfare and service fields, and the levels at which these patterns are present as measured by the SVIB.

Hypothesis 2.32 No significant difference exists between male and female counselor candidates in interest patterns and the levels at which these patterns exist.

Instrumentation

For the purpose of this investigation, psychological openness and dogmatism were operationally defined as the score achieved by the subject on the RDS (Rokeach, 1960 pp. 71-100). Previous researches have established the usefulness of this device by finding satisfactory correlations between scores achieved on the scale and personality variables serving as criterion measures. By and large, it may be considered the best existing objective measure of closed- open-mindedness. A host of studies support the reliability and validity of the instrument (Rokeach, 1960, pp. 101-108; 171-274).

The tolerant personality was defined by the score achieved on the Berkeley POQ. This scale has been widely investigated by

Adorno, et. al. (1950) and since its publication in 1950, it has been used in many investigations (Christie and Cook, 1958).

Rushlau (1957) in a study of the tolerance for ambiguity as a general behavior type found the questionnaire an adequate measure of ambiguity tolerance.

The scores obtained on the clinical scales of the MMPI defined the personal adjustment and general mental health level of the group. Norms used to evaluate the performances in the inventory were those established for normal male and female adults (Dalsstrom and Welsh, 1960). The MMPI is the most widely researched of personality inventories. Its validity as a personality test measure in discriminating groups has been established (Ellis, 1956; Calvin and McConnel, 1958).

The SVIB scores defined the interest patterns of the counselor candidates, based on occupational group interests and according to the levels at which these patterns exist. Strong and his associates (1943; 1957) have validated the Strong Vocational Interest Blank For Men and Women on various specific occupations and occupational groups. There is little question that this interest inventory is one of the best now in use not only for counseling and selection purposes, but also for the broader field of research.

Results and Analysis of Data

Psychological openness and tolerance of ambiguity Hypothesis

2.11 stated that counselor candidates are not more open-minded nor are they more tolerant of ambiguity than the normative non-counselor samples. Hypothesis 2.12 further stated that no significant difference exists in psychological openness and tolerance of ambiguity between the male and female counselor candidate groups. Data relevant to these assertions are presented in Tables 3.1 and 3.2.

The Mean scores, standard deviations and standard errors of the mean measurements, together with the critical ratio results between male and female counselor candidates for the RDS and the Berkeley POQ, summarized in Table 3.1. In Table 3.2 the results of comparative analysis made between the mean performances of counselor candidates and the normative samples (Rokeach, 1960, p. 80) are presented.

TABLE 3.1

MEAN SCORES, STANDARD DEVIATIONS, STANDARD ERRORS OF THE MEAN, AND CRITICAL RATIO RESULTS FOR THE RDS AND THE BERKELEY POQ

	MALE (106)		FEMALE (65)		TOTAL (171)	
	RDS	POQ	RDS	POQ	RDS	POQ
Mean Raw Score	-18.90	-71.39	-16.70	-78.75	-20.88	-63.51
Interpolated Score	141.10	248.61	143.30	241.25	139.12	256.49
S. D.	22.19	42.00	20.95	45.90	21.70	26.35
SEM	2.45	4.07	5.67	5.67	.212	.20
Critical Ratios	RDS		.63			
	Berkeley POQ		1.08			

TABLE 3.2

CRITICAL RATIOS OF PAIRED MEAN (INTERPOLATED) SCORES
OF COUNSELOR CANDIDATES AND THE NORMATIVE SAMPLES

GROUPS	MEAN DIFFERENCES	CRITICAL RATIO
English College I	80.06	27.85**
English College II	13.68	4.02**
English Workers	36.78	9.94**
Ohio State Univ. I	3.48	5.70**
Ohio State Univ. II	4.68	1.04
Ohio State Univ. III	3.48	6.69**
Ohio State Univ. IV	1.38	.44
Ohio State Univ. V	2.18	.54
Michigan State Univ.	4.08	1.24

**Significant at the .01 level of confidence

Differences not greater than zero were computed for the paired mean scores of male and female counselor candidates on the RDS and the Berkeley POQ scales. Critical ratios significant at the .01 level of confidence were obtained between the counselor candidate norm and the norms of five other non-counselor samples.

The interpolation of mean scores of the Berkeley POQ produced interpolated mean scores of 248.61, 241.25, and 256.49 for the male, female, and the total group respectively. Since no significant difference was observed between male and female mean scores, the total group mean was used for comparison purposes with the normative non-counselor sample. The mean obtained for the Berkeley

sample is 27.85 points lower than the mean score of 285.36 for the norm group. As a group, the counselor candidates are relatively more tolerant of ambiguous stimuli than the non-counselor group.

On the basis of the above findings, hypothesis 2.11 was rejected. Counselors differ significantly from other non-counselor groups in tolerance of ambiguity and open-mindedness. The degree to which dogmatism and intolerance of ambiguity are operant in the personality of the counselor candidates is significantly low. Hypothesis 2.12 is a valid assertion. There is no significant sex difference in dogmatism and tolerance of ambiguity. This finding supported Adorno's (1950) report, which Stotsky (1955) replicated, and which demonstrated no consistent sex differences in performances on scales designed to measure aspects of authoritarianism. They are consistent with the findings of Anderson (1962) whose female subjects are consistently higher but not significantly more dogmatic than males.

Hypothesis 2.13 stated that the two scales, RDS and the Berkeley POQ are not related, and that each independently measures specific character traits of closed-mindedness and tolerance of ambiguity. Findings relative to this hypothesis are shown in Table 3.3.

Pearson Product Moment Correlations of .54, .52 and .64 were calculated for the male, female and total counselor candidate groups respectively. These values are positive and both tests

of statistical significance, the PE_r and the t tests, indicated true significant relationships. An overlap of about 35 per cent is observable.

TABLE 3.3

CORRELATION SCORES, $PE_r^@$ AND "t" VALUES OF THE RDS AND THE BERKELEY POQ

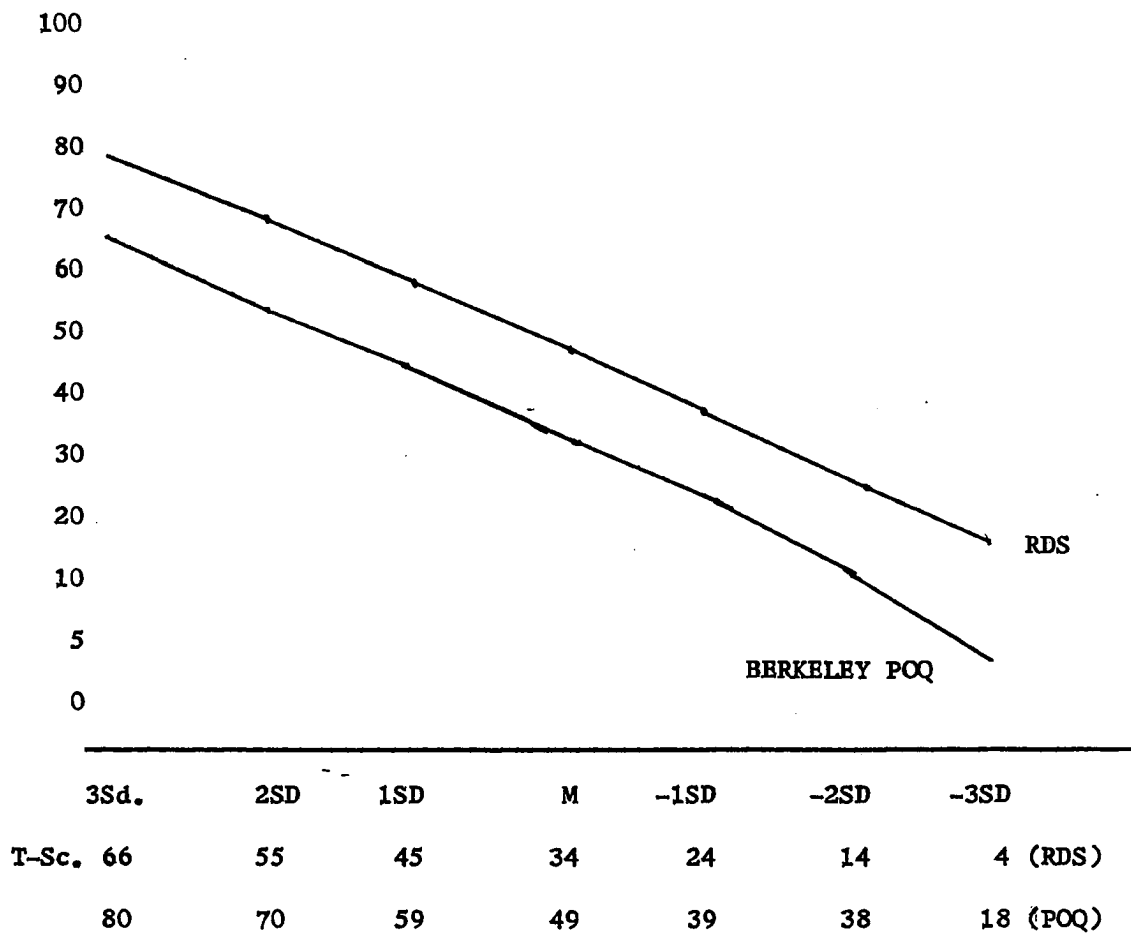
GROUPS	N	r	$PE_r \times 4$	"t"
Male	106	.54	.068	6.69**
Female	65	.52	.080	4.86**
Total	171	.64	.400	10.20**

**Significant at the .01 level of confidence

@ $PE_r \times 4$ values must be less than the r to be statistically significant.

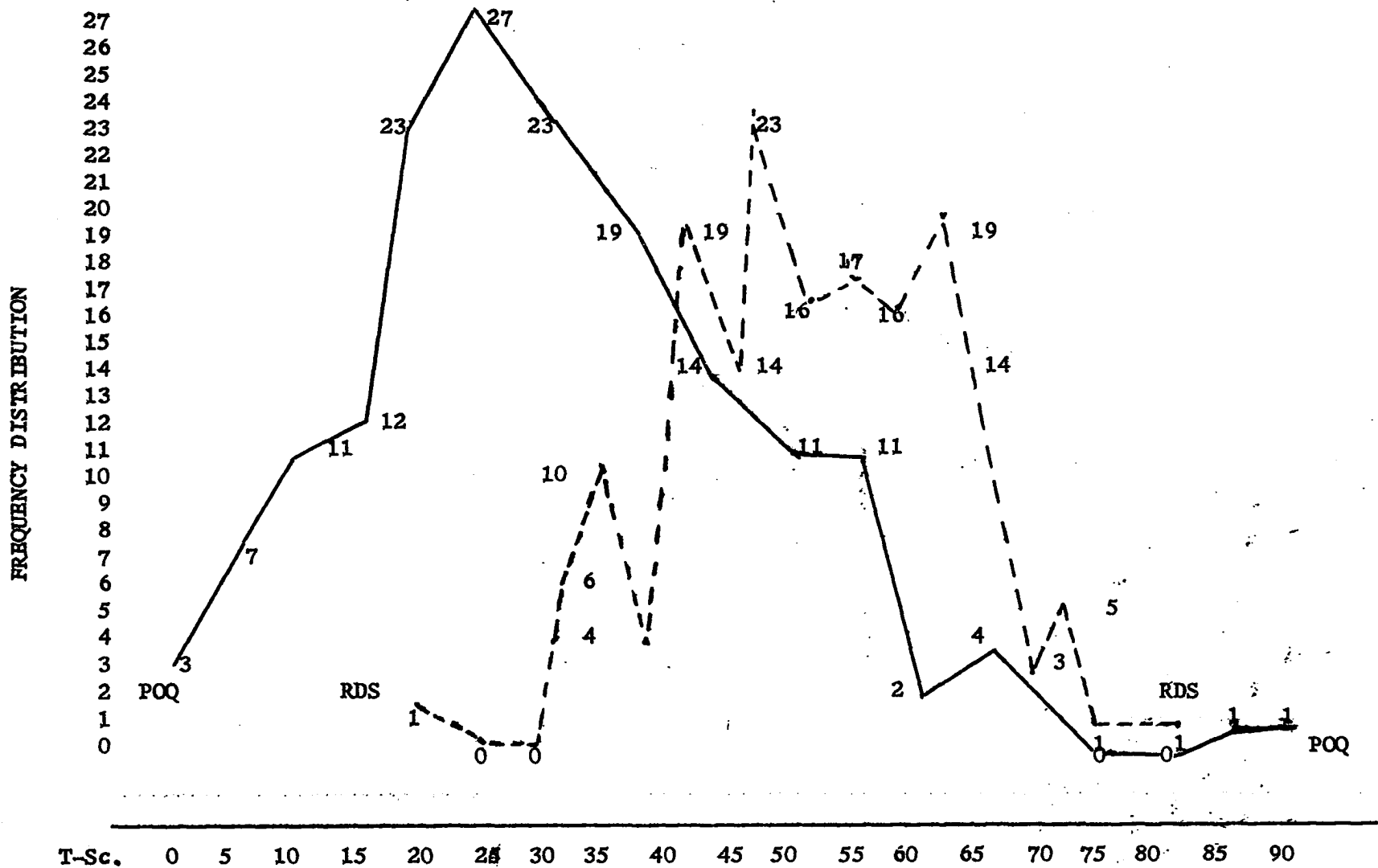
The hypothesis of no significant relationship between the scales was rejected at the .01 level of confidence. Dogmatism and intolerance of ambiguity as measured by the RDS and the Berkeley POQ, though not necessarily synonymous, are closely and significantly related.

Transformation of raw scores into standard scores, T scores, made possible the graphical illustration of the comparative analysis of scores of the two scales. Computed T scores were entered in Appendices A and B. In Figure One, the extent to which each scale measures independently was illustrated. It will be noted that the Berkeley POQ measured consistently only within



COMPARATIVE T SCORES BETWEEN ROKEACH DOGMATISM SCALE
AND THE BERKELEY PUBLIC OPINION QUESTIONNAIRE
(N = 171)

FIGURE I



GRAPHICAL PRESENTATION OF FREQUENCY DISTRIBUTION OF THE RDS AND BERKELEY POQ
(N= 171)
FIGURE 2

plus-minus two standard deviation units. The RDS, however, consistently measured from ± 3 SD to $- 3$ SD units. And thus, it appears to be the more reliable instrument of the two. In Figure Two the extent of observable overlap of about 35 per cent was located. The reliability of the two measuring instruments for assessing psychological openness and tolerance of ambiguity was also indicated in Figure Two. Within the plus-minus two standard deviation limits from the mean score, the Berkeley POQ identified 95 per cent of counselor candidates as tolerant personalities. The RDS, however, was able to assess a smaller percentage, 70 per cent, as open-minded. Thirty per cent of the total group of counselor candidates have high average to high measures of closed-mindedness.

General mental health It was stated that the MMPI clinical scales would not identify a counselor candidate personality significantly different from that of the normal male and female adults. Assertion was also made with reference to lack of significant differences between the male and female counselor candidates' MMPI clinical mean profiles. Findings relevant to these assertions were entered in Table 3.4 and Table 3.5.

Table 3.4 is the summary of mean, standard deviations, and SE_m scores of the counselor candidates on the MMPI. The critical ratios of the paired male and female mean scores were also presented. Table 3.5 presents the critical ratios of paired mean

scores of the normative and counselor candidate samples.

The data describing the mean differences between male and female counselor candidates are statistically significant on the Hs, D, Hy, Mf, and Ma scales, with the female candidates recording the higher scores, except on the Ma scale which was registered higher for the males. The findings permitted rejection of the null hypothesis of no mean differences between male and female counselors on the MMPI clinical scales.

TABLE 3.4

MEAN SCORES, STANDARD DEVIATIONS, STANDARD ERRORS OF MEANS
AND CRITICAL RATIO RESULTS OF PAIRED MALE AND FEMALE NORMS
(MMPI)

SCALES	MALE			FEMALE			CR
	Mean	SD	SEm	Mean	Sd	SEm	
L	3.33	2.42	.235	4.04	1.78	.222	-2.19*
F	3.06	2.13	.207	2.95	2.46	.307	2.89**
K	18.89	4.14	.402	19.63	4.09	.511	-1.16
Hs	2.74	4.14	.238	4.11	4.50	.562	-2.25*
Hs (c)	12.11	2.98	.289	14.18	3.69	.461	-3.63**
D	16.40	3.95	.325	18.32	4.52	.565	-2.69**
Hy	21.19	4.11	.498	23.56	3.99	.498	-3.34**
Pd	13.71	3.27	.318	14.80	5.14	.642	-.58
Pd (c)	22.19	3.20	.348	22.46	3.99	.496	-.50
Mf	27.19	6.87	.376	35.70	4.05	.506	-11.70**
Pa	10.04	2.41	.219	9.49	2.68	.335	1.37
Pt	7.28	5.61	.490	6.55	5.14	.453	1.15
Pt (c)	25.80	5.11	.375	26.70	4.20	.521	-1.40
Sc	6.79	4.71	.457	6.13	4.35	.543	.94
Sc (c)	25.80	5.11	.392	25.90	6.84	.854	.41
Ma	16.18	3.70	.359	14.90	3.59	.449	2.31**
Ma (c)	19.94	3.77	.317	17.56	6.18	.772	2.86**
Si	18.30	9.05	.710	20.32	4.92	.612	-2.13

** Significant at the .01 level of confidence

* Significant at the .05 level of confidence

The differences on these scales (Hs, D, Hy, Mf, and Ma) are significant at the .01 level of confidence. The profiles obtained suggested the female candidates as having the tendency, significantly higher than the male candidates, to be hysterical, depressed, and to develop neurotic patterns of social dependency; however, the tendency to be more active and to develop deeper hostile and aggressive behavior are significant among the male.

TABLE 3.5

CRITICAL RATIOS OF PAIRED MEAN SCORES OF NORMATIVE
SAMPLES@ AND COUNSELOR CANDIDATES ON THE MMPI

SCALES	:MEAN DIFFERENCE :		:MEAN DIFFERENCE :	
	Female	: CR	Male	: CR
L	.23	.88	.72	2.48*
F	.24	1.28	.82	1.81
K	-6.55	-11.29**	-5.41	-10.21**
Hs	2.75	4.59**	1.79	5.26**
Hs (c)	-1.04	2.00*	-.76	-2.05*
D	.94	1.51	.23	.56
Hy	-4.76	-8.67**	-4.70	-8.24**
Pd	-1.36	-2.01	.27	.69
Pd (c)	-4.05	-6.86	-2.80	-6.66**
Mf	.81	.84	-6.77	-11.08**
Pa	-1.51	-4.19**	-1.98	-6.60**
Pt	6.51	9.04**	2.58	3.88**
Pt (c)	-1.49	-2.44*	-2.85	-6.51**
Sc	4.60	6.96**	2.78	4.41**
Sc (c)	-3.35	-3.64**	-3.25	-6.50**
Ma	-1.25	-2.46*	-1.57	-3.34**
Ma (c)	-1.44	-1.92	-2.94	-7.35**
Si	4.68	5.63**	6.70	7.12**

** Significant at the .01 level of confidence

* Significant at the .05 level of confidence

@ Data from the MMPI Handbook by Dahlstrom, W. G. and Welsh, G. (1960)

The comparative analysis made between the mean raw scores of counselor candidates and the normative non-counselor sample on the MMPI clinical scales revealed significantly lower mean scores which identified the counselors as having lower scores on the uncorrected scales. The corrected scales, however, recorded elevated profiles for the counselor candidates which are significantly higher compared with the standard norm. It would appear that in this instance, the K scale may be functioning to cancel the counselor candidate's greater knowledge of the meaning of the MMPI items. Cottle and Lewis (1954) found a similar situation whereby the K correction affected their college counselors' clinical scores significantly. This could be interpreted as an indication that the MMPI is a very sensitive instrument to use with samples who are sophisticated with respect to personality inventories.

Hypotheses 2.21 and 2.22 were rejected. The findings established significant mean differences between several clinical scales for male and female counselor candidates; and for the counselor candidate group and the normative samples.

The male counselor candidate's MMPI profile was compared with the MMPI profiles of other male counselor samples--Cottle and Lewis' (1954) college counselors and Brans' (1957) counselor trainees.

Table 3.6 presents the results of the comparative mean score study. The mean raw scores and mean T scores of the three counselor samples together with the mean raw scores and mean T

scores of the male normative samples (Dalshtrom and Welsh, 1960) were studied.

The three male counselor groups have almost identical MMPI clinical profiles. They, as a group, appear to be somewhat defensive and eager to make good impressions on others. They are sensitive in their dealings with others, are "highly feminine,"² and relatively outgoing in their personal relationships.

TABLE 3.6

MEAN RAW SCORES (CORRECTED) AND MEAN T SCORES FOR 106 MALE COUNSELOR CANDIDATES; 65 MALE COLLEGE COUNSELORS; AND 22 COUNSELOR TRAINEES, COMPARED WITH MALE NORMATIVE SAMPLES (MMPI)

GROUPS	MMPI S C A L E S												
	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
Candidates	3	3	19	12	16	21	22	27	10	26	26	20	18
	46	50	62	52	50	58	57	63	56	56	57	58	43
Counselors	2	3	20	12	17	20	22	27	9	25	26	19	17
	43	50	64	52	51	56	57	63	53	54	54	55	42
Trainees	2	3	20	12	17	21	22	26	9	26	25	19	18
	43	50	64	52	51	58	57	61	53	56	55	55	43
Normative	4	4	13	11	17	16	19	20	8	23	22	17	25
Sample	50	53	51	49	51	49	50	49	50	50	50	50	50

Based on the findings, it appears that the MMPI is a highly reliable instrument for discriminating various groups. A counselor personality profile significantly different from that of the normal

²High Mf score is typically found with student populations. With regard to the present study, the elevation of the Mf score is assumed to be undoubtedly due to the higher cultural and educational levels of the subjects. And, in counseling, it is the feminine qualities of the culture that are desirable.

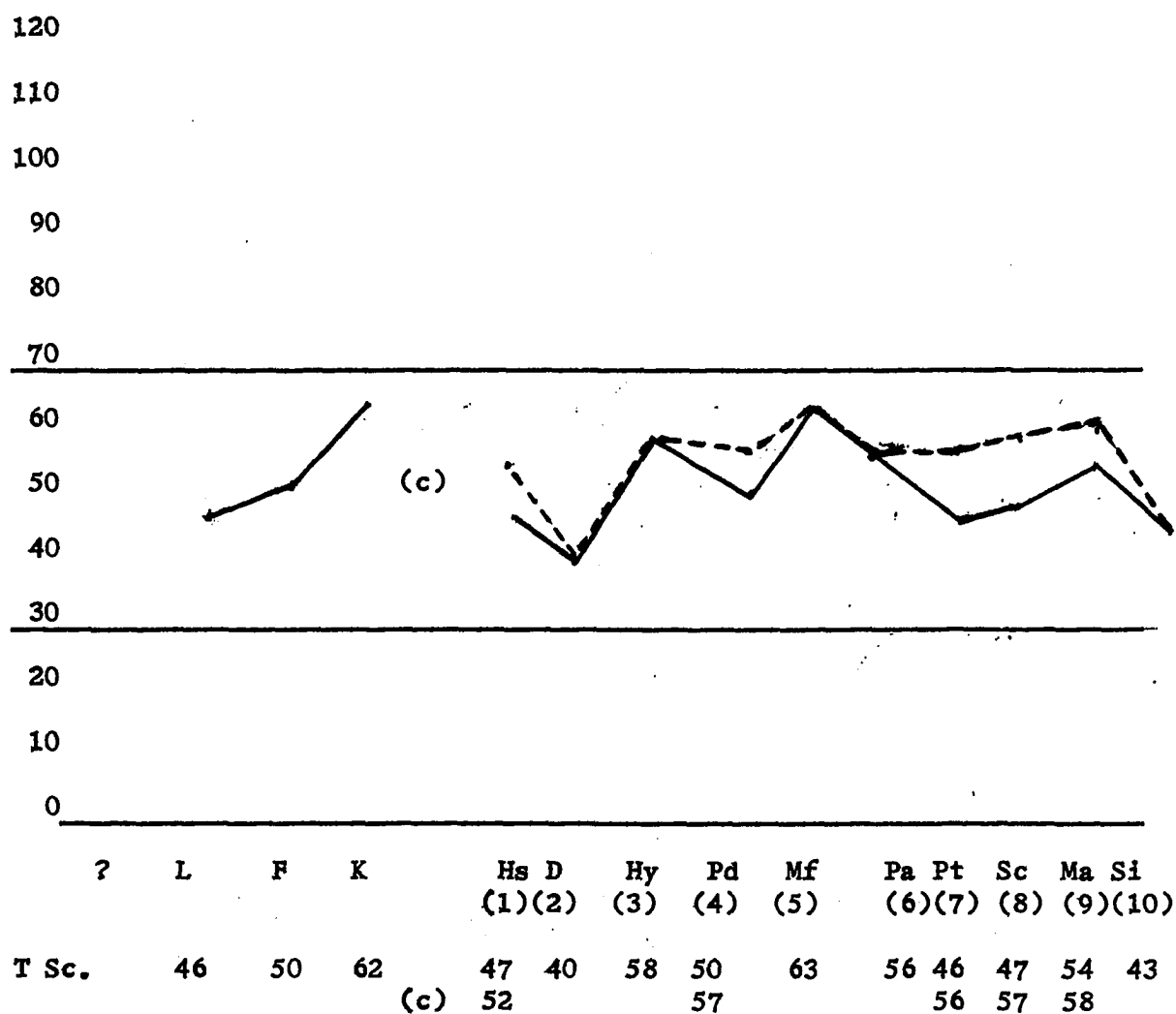
male and female adults was established.

Figure Three and Figure Four are graphical presentation of the counselor candidate's MMPI mean clinical profiles, corrected and uncorrected.

A third assertion made in connection with the MMPI was that no relationship exists among the clinical scales. The data in Table 3.7 reflects that this assertion is not valid. Several personality characteristics operate in various combinations on the MMPI scales. Significant to insignificant positive and negative correlations were computed ranging from .24 to .88. All the relationships from .28 above to -.24 below are statistically significant at the .01 level of confidence. The estimated t values and probable errors of the correlations obtained are also evidenced in Table 3.7. Of significant interest would be the significant intercorrelations among the D, Hs, Pa, Pt, Sc, and Hy scales.

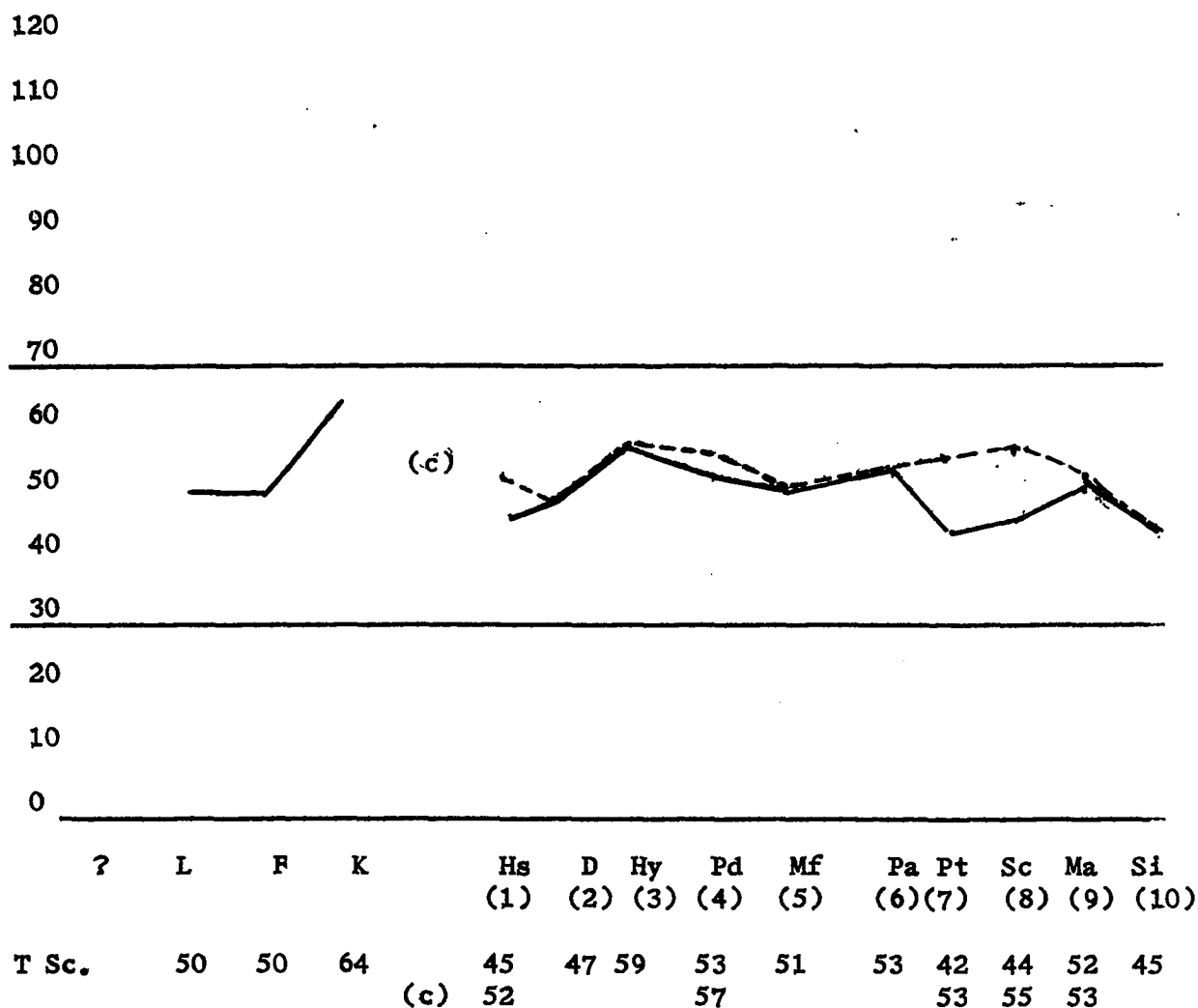
Hypothesis 2.23 was rejected. There are rather consistent internal groupings of behavioral features. Personality traits occur in clusters which overlap and interrelate in many ways.

Interest The results of statistical treatment of the SVIB scores are shown in Table 3.8. There is partial support for the hypothesis that the interest patterns of the counselor candidates would not differ significantly from those of men highly successful in professional and scientific occupations (Group I) and in occupations dealing with service to people and working with them (Group



MMPI MEAN CLINICAL PROFILE (MALE COUNSELOR
CANDIDATES) N= 106

FIGURE 3



MMPI MEAN CLINICAL PROFILE (FEMALE COUNSELOR
CANDIDATES) N= 65

FIGURE 4

TABLE 3.7

CORRELATION RESULTS, $PE_r@$ AND "t" VALUES OF THE MMPI SCALES+

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) <u>Hs</u>									
r	.51	.46	.88	.22	.49	.34	.50	-.08	.19
$PE_r \times 4$	4.14	.18	.04	.19	.15	.18	.14	.20	.17
"t"	8.47**	6.81**	24.13**	2.94**	7.32**	4.81**	8.47**	.03	1.80
(2) <u>D</u>									
r		.33	.48	.24	.14	.28	.45	-.38	.36
$PE_r \times 4$.14	.14	.19	.20	.19	.16	.18	.18
"t"		4.29**	7.17**	3.50**	1.81	3.62**	6.56**	5.45**	4.96**
(3) <u>Hy</u>									
r			.34	.28	.29	.26	.40	-.01	.10
$PE_r \times 4$.18	.19	.18	.18	.17	.21	.23
"t"			4.83**	3.78**	3.93**	3.53**	5.64**	.07	1.34
(4) <u>Pd</u>									
r				.03	.35	.35	.84	-.24	-.01
$PE_r \times 4$.20	.18	.18	.06	.16	.21
"t"				.58	4.87**	4.88**	20.14**	3.50**	.01
(5) <u>Mf</u>									
r					-.07	-.03	-.01	.05	.23
$PE_r \times 4$.20	.20	.21	.20	.19
"t"					.58	.58	.11	.95	3.08**
(6) <u>Pa</u>									
r						.51	.39	-.11	-.05
$PE_r \times 4$.18	.18	.20	.20
"t"						8.52**	5.52**	1.39	.69
(7) <u>Pt</u>									
r							.59	-.09	.23
$PE_r \times 4$.13	.20	.19
"t"							9.46**	1.19	3.08**
(8) <u>SC</u>									
r								.12	.15
$PE_r \times 4$.19	.20
"t"								1.57	1.67
(9) <u>Ma</u>									
r									.03
$PE_r \times 4$.20
"t"									.58

+Corrected

@ $PE_r \times 4$ values must be less than the r to be statistically significant.

** Significant at the .01 level of confidence.

V). Primary interest patterns in Group V were indicated by both male and female counselor candidate samples. In Group I, however, secondary interest patterns were revealed. The ratings calculated for both occupational groups were A and B respectively. Secondary interest patterns were also indicated by both groups in Group IX and Group XI, interest patterns involving salesmanship and administrative tasks. The female candidates, in addition, showed secondary interest patterns in Group VIII.

TABLE 3.8

MEAN SCORES, STANDARD DEVIATIONS, AND STANDARD ERRORS OF MEANS TOGETHER WITH THE CRITICAL RATIOS BETWEEN MALE AND FEMALE COUNSELOR CANDIDATES ON THE STRONG VOCATIONAL INTEREST BLANK (SVIB)

OCC. GROUPS	MALE			FEMALE			
	Mean	SD	SEm	Mean	SD	SEm	CR
I	34.80 (B)	8.46	.76	39.39(B)	8.64	1.08	-3.40**
II	24.90 (B-)	10.74	.98	23.70(C)	9.36	1.19	.18
III	31.00 (B-)	9.69	.87	23.70(C)	7.53	.94	5.70**
V	53.62 (A)	7.74	.70	53.19(A)	6.99	.87	.41
VII	28.60 (C)	9.09	.87	29.80(C)	9.12	1.14	-.58
VIII	33.35 (B-)	10.08	.91	34.60(B-)	11.88	1.48	-.72
IX	38.47 (B)	9.09	.82	40.77(B)	7.53	.94	-1.79
XI	31.92 (B-)	9.93	.90	34.80(B-)	10.95	1.37	-1.74
NON-OCCUPATIONAL GROUPS							
Spec. Level	50.20 (A)	6.63	.50	45.61(B-)	6.60	.82	4.55**
Int. Mat.	58.36 (A)	4.63	.43	58.90(A)	5.58	.69	-.72
Occ Level	53.73 (A)	6.06	.55	54.03(A)	6.12	.76	-.32
M-F	42.45 (B-)	10.44	.95	27.51(C)	11.09	9.85	9.82**

** Significant at the .01 level of confidence

The levels at which these inventoried interest patterns exist are also significant. Interests exist at a significantly mature

state and on highly specialized and professional levels. It is significantly interesting to note the high femininity of male candidates' interests and the tendency of the female samples to deviate toward masculine interests.

Whether or not the interests manifested by the counselor candidates are related to other occupational groups as inventoried, and to the state and levels at which they were found to exist, were determined in a correlational study. Since no significant differences were found between male and female interest patterns as revealed by the letter grade ratings, the total group scores were utilized in the correlational study.

Group I and Group V patterns were used as major variables. They were first correlated with each other; then each was correlated with the pattern of Group IX and the four non-occupational groups.

Table 3.9 presents the intercorrelational results. Pearson Product Moment correlations ranging from $-.34$ to $.21$ were calculated using Group I as major variable, as its relationship with Groups V and IX and the non-occupational group scales were investigated.

Interest patterns in Group I, professional and scientific occupational fields, are negatively correlated with Group V patterns and interest in dealing with people. Negative correlations were calculated likewise when Group I was related to Group IX. On the non-occupational scales, negative relationship was computed on the masculinity-

femininity scale. All the estimated negative correlations are true and statistically significant at the .05 and .01 levels of confidence.

TABLE 3.9

INTERCORRELATION RESULTS OF OCCUPATIONAL GROUPS I, V, IX
AND THE NON-OCCUPATIONAL SCALES ON THE SVIB (TOTAL GROUP)
(N= 171)

	GROUP I			GROUP V		
	r	PEr x 4	t	r	PEr x 4	t
Gp. I	-.27	.19	3.56**	-	-	-
Gp. IX	-.29	.19	3.83**	.19	.20	2.61**
Sp. level	.16	.20	2.08*	.23	.19	3.11**
Int. Mat.	-.32	.16	4.39**	.74	.14	13.67**
Occ. Level	.21	.20	2.81**	-.09	.20	1.17
M-F.	-.34	.17	4.61**	-.24	.20	3.22**

* Significant at the .05 level of confidence

** Significant at the .01 level of confidence

Positive correlations, significant at the .05 and .01 levels respectively, were established with occupational Group V and the specialization and occupational levels.

Group V, the primary interest pattern obtained for the group, correlates positively with Group IX. The relationship is statistically significant. Similar relationships were determined for specialization level. The established positive relationship with interest maturity is significant, .74. Negative correlations were shown on both occupational level and masculinity-femininity scales, the latter being statistically significant.

The results on the whole have indicated that the counselor candidates have primary interest patterns on occupations involving people and working with them. This interest pattern is significantly mature and exists on occasions at a specialization level. Such an interest pattern is not necessarily professional and has no direct relationship to either the masculine or feminine nature of the task or activity involved.

The interest patterns inventoried for the professional and scientific occupational fields are secondary for both male and female counselor candidate groups.

CHAPTER IV

SUMMARY AND CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

Chapter four of the study is presented in three sections:

(1) Summary and conclusions, (2) Discussion and (3) Recommendations.

Summary and Conclusions

The purpose of the study was to complete a normative analysis of psychological tests used for screening counselor candidates at Western Michigan University. Test data analyzed included responses of 171 counselor candidates on the Minnesota Multiphasic Personality Inventory (MMPI), Strong Vocational Interest Blank (SVIB), Rokeach Dogmatism Scale (RDS), and the Berkeley Public Opinion Questionnaire (Berkeley POQ) from Spring Term, 1964 to Winter Term, 1965.

Several limitations were considered as they may have important bearing on the findings that accrue from the investigation: (1) It was recognized that the sample was not randomly chosen, and whether or not it was representative of the student group selecting counselor education at Western Michigan University was not known; (2) It was further recognized that the validity of the tests used have been empirically derived; (3) and because of the motives and defenses of the respondents, the tests may also exhibit different proportions of reliable variation and even measure different constructs under different testing circumstances.

The normative survey method of research was employed. Specifically the techniques used were documentary procedure and statistical analysis. The main tasks involved the estimation of mean performances in each test and testing of statistical significances of scores obtained.

There were two phases of the study: (1) The establishment of university norms, and (2) a normative analysis of obtained results.

In phase one, sex norms and group norms (mean raw scores and T scores) were developed for the RDS and the Berkeley POQ. Sex norms, also mean raw scores, were established for the clinical scales of the MMPI and the occupational groups, and the non-occupational groups on the SVIB. These norms are statistically significant.

In phase two, an analysis of character traits generally accepted by authorities as having significant implications to effectiveness of counseling relationships was completed. Such traits are open-mindedness, tolerance of ambiguity, general mental health and interest patterns relative to liking people and working with them.

The following conclusions have been reached within the limitations of the study:

1. With the available data, tentative university norms were established utilizing appropriate statistical techniques.
2. The hypothesis of true difference between counselor candidates and the norm group (s) in openness and tolerance of ambiguity was accepted. Counselor candidates are significantly less dogmatic and

relatively more tolerant of ambiguity than the normative non-counselor group(s).

3. The hypothesis of no significant sex difference among counselor candidates in degree of openness and tolerance of ambiguity was accepted. Differences between sexes are merely attributed to chance. Counselor candidates regardless of sex are similar in personality organization with respect to these traits.

4. The hypothesis of no significant relationship between dogmatism and intolerance of ambiguity was rejected. Dogmatism and tolerance of ambiguity are positively related. The relationship is statistically significant. An overlap of about 35 per cent was estimated to occur between the two scales, the RDS and the Berkeley POQ.

5. The hypothesis of no significant sex differences on the MMPI scales was rejected. Significant differences ($p < .01$) were calculated for the Hs, D, Pt, and Ma scales. Such differences drew a female counselor candidate profile characterized as having significant tendencies to be hysterical, depressed, and socially dependent; and a male counselor candidate profile characterized by significant tendencies toward aggressive behavior. Sex norms figured for counselor candidates, however, are within the normal range of adjustment.

6. The hypothesis that the MMPI will not discriminate with a high degree of certainty between personality traits of counselor candidates and the normal male and female adults was rejected. A

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generic counselor candidate personality profile was established, a personality which is significantly more sensitive, more defensive, highly feminine, more anxious, extroverted and with higher motivation to make a good impression on others.

7. The hypothesis that interrelation among the clinical scales is not valid was rejected. Statistically significant positive and negative relationships were obtained in the correlational analysis of the scale scores, with the exception of the correlation results obtained from the Mf and Ma scales which were mostly insignificant. Personality variables are not distinct and separate but exist correlatedly in an organized whole. Significant interrelationships were noted mostly among the Pt, Pa, Hy, D, and Sc scales.

8. The hypothesis of presence of significant interest patterns relative to social welfare and service occupations was accepted. The interest patterns assessed in line with these occupational fields were significantly mature, professional and specialized. The hypothesis was supported both by the normative study and the correlational analysis of results.

Discussion

On the basis of the data obtained, it was held that the screening instruments adequately tapped the characteristics of open-mindedness, tolerance of ambiguity, general mental health, and interests among the counselor candidates. The results offer support for predictions

drawn from the general hypotheses that university norms can be established and that traits believed to be significant to the establishment of an effective counseling relationship can be assessed and measured by standardized objective instruments such as the MMPI, SVIB, RDS, and the Berkeley POQ.

The study was normative and delimited to a certain extent by the sampling used. However, the findings seem worthy of attention. They not only provide tentative university norms against which scores of counselor candidates may be evaluated, but also substantiate assertions with respect to the usability of the tests as screening instruments. Likewise, they facilitate the guidelines for an on-going program of research for the Guidance and Personnel Services Unit of the School of Education at Western Michigan University.

A knowledge of personal qualities of counselor candidates is the first step toward prediction research. Although prediction research has not been as fruitful as desired (Shostrom and Brammer, 1960), there are reasons for optimism in discovering more about the characteristics of the counselor practitioners in developing criterion measures of counseling skills and success.

With reference to findings obtained, the result of the comparative study of the three counselor samples (WMU counselor candidates, Bram's counselor trainees, 1957, and Cottle and Lewis' college counselors, 1954) is very revealing. It is significant that the

comparable groups have almost identical scores. That a generic counselor personality is observable was verified; that such observable personality characteristics differ significantly from the normal adult population was also confirmed. In considering these differences, however, it is important to keep in mind that all mean scores are within normal limits, that is plus-minus two standard deviations units from the mean scores. While differences in scores are statistically significant, they are too small to be of clinical utility. Such differences that arose, however, appear to be psychologically meaningful. The counselor's elevated scores are indicative of more anxiety, antagonism against authority and inclination toward more impulsive behavior. The D score, however, suggests that anxiety is directed normally. In general, behavior is socially adequate.

Elevation of scores were the result of the high K scores indicating a higher degree of defensiveness among the counselor candidates. In view of this phenomenon, the functions and purposes of testing and the test sophistication of the graduate students as a group should be given consideration.

High Mf scores on the MMPI are found rather frequently in an educational setting (Dalshtrom and Welsh, 1960). Drake and Oetting (1957) found that a high Mf score operates as a suppressor variable for the MMPI profile predictive of academic under-achievement. For

use in selection of counselor candidates in assessing their personality make-up, high Mf scores on the MMPI and on the SVIB among the males are indicative of "femininity" in the counselor candidate's own personality make-up.

Farson (1954) pointed out that the personal traits needed in counseling are typically perceived as feminine in nature.

By and large, in our American society, the male is expected to be clever, tough, strong, courageous, independent, more concerned with things than with people. Whereas, the female should be tender, gentle, loving, dependent, receptive, passive, more concerned with family and interpersonal relationships than with things. If we were to say which of these is most important to embody as a counselor, we would no doubt agree that the female role becomes closer. In this sense, the counselor is a woman (p.222).

Counselor candidates regardless of sex are not significantly different in personality make-up. This observation seems logical in counseling, for in the counseling relationship the counselor should be able to free himself from the limits of narrow and inappropriate masculine and feminine roles. The nature of the counseling task implies the counselor's need for a broader concept which includes the behavior of both roles so as to be always ready with behavior that is appropriate to the situation, so that he, the counselor, is both a man and a woman.

The above findings, while empirically determined, are subject to test and further investigation. As mentioned earlier, predictive research would be fruitful of more information and more valid conclusions regarding counselor personality characteristics and how

they relate to counseling effectiveness. This will yield, therefore, more valid conclusions regarding the appropriateness of the employment of such measures for screening counselor candidates at Western Michigan University, and eventually lead to the establishment of criteria for personal qualifications of counselors.

Recommendations

On the basis of data collected, the following recommendations are made:

1. The use of norms established on each measuring instrument composing the screening battery in discriminating between potentially successful and unsuccessful counselor candidates is recommended.

The existence of normative data on the tests suggests that such tests along with these data might be used in counseling interviews with applicants for admission to the counselor training program at Western Michigan University.

2. A follow-up study of test scores in relation to the later behavior of the sample is mandatory, because while such data may be considered to constitute norms, there is no basis on which to set cutting scores.

3. While it was held that the instruments adequately measured the important characteristics assumed to be essential in counseling success, nevertheless, the employment of the tests for rigid use

in selection is recommended sparingly. It must be recognized that these instruments are not and will never be perfectly correlated with the criteria of counseling success. The psychometric properties of a test on a particular occasion are a function of the psychological processes used in responding; and these processes, being determined in part by the conceptions and needs of the respondents, often entail mechanisms of self-deception and deliberate facades.

4. Replication of the study, using a sample chosen more scientifically, to test and verify the significance of presently obtained data is strongly recommended.

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APPENDIX A

STANDARD SCORES (T SCORES) FOR THE
BERKELEY POQ - COUNSELOR CANDIDATES

R- Sc:	T- Sc:	R- Sc:	T- Sc:	R- Sc:	T- Sc:	R- Sc:	T- Sc:	R- Sc:	T- Sc:
107	100	55	80	3	60	-48	40	-101	20
104	99	53	79	00	59	-51	39	-103	19
102	98	50	78	-1	58	-53	38	-106	18
99	97	47	77	-4	57	-55	37	-108	17
97	96	45	76	-6	56	-58	36	-112	16
95	95	42	75	-9	55	-61	35	-114	15
92	94	39	74	-11	54	-64	34	-117	14
89	93	37	73	-14	53	-68	33	-119	13
87	92	34	72	-17	52	-70	32	-122	12
83	91	32	71	-19	51	-72	31	-125	11
81	90	29	70	-22	50	-75	30	-127	10
78	89	26	69	-25	49	-77	29	-130	9
75	88	24	68	-27	48	-80	28	-133	8
73	87	21	67	-30	47	-83	27	-135	7
70	86	18	66	-33	46	-85	26	-138	6
67	85	16	65	-35	45	-88	25	-140	5
65	84	13	64	-38	44	-90	24	-143	4
62	83	11	63	-40	43	-93	33	-146	3
60	82	8	62	-43	42	-96	22	-148	2
57	81	5	61	-46	41	-98	21	-152	1
MEAN -63.51									
SD 26.35									
N 171									

APPENDIX B

STANDARD SCORES (T SCORES) FOR THE
RDS - COUNSELOR CANDIDATES

R- Sc:	T- Sc:	R- Sc:	T- Sc:	R- Sc:	T- Sc:	R- Sc:	T- Sc:	R- Sc:	T- Sc:
82	100	44	80	2	60	-40	40	-82	20
79	99	42	79	0	59	-42	39	-84	19
77	98	39	78	-2	58	-44	38	-85	18
75	97	36	77	-5	57	-46	37	-89	17
73	96	34	76	-7	56	-48	36	-92	16
72	95	32	75	-9	55	-50	35	-95	15
71	94	30	74	-11	54	-53	34	-98	14
70	93	28	73	-13	53	-55	33	-100	13
68	92	26	72	-15	52	-57	32	-102	12
67	91	24	71	-16	51	-59	31	-104	11
66	90	23	70	-18	50	-59	30	-104	10
64	89	21	69	-20	49	-63	29	-109	9
62	88	19	68	-22	48	-65	28	-111	8
60	87	17	67	-24	47	-67	27	-113	7
57	86	15	66	-26	46	-70	26	-115	6
55	85	13	65	-29	45	-72	25	-117	5
52	84	11	64	-31	44	-74	24	-118	4
50	83	9	63	-33	43	-76	23	-119	3
48	82	6	62	-35	42	-78	22	-122	2
46	81	4	61	-37	41	-80	21	-125	1
MEAN					-20.88				
SD					21.70				
N					171				