

This is to certify that the

thesis entitled

The Relationship of Educational-Occupational
Background, Stereotype, Traditional Emergent
Values, Sex, and Academic Aptitude of
College Students to Counseling Pursuit

presented by

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ABSTRACT

THE RELATIONSHIP OF EDUCATIONAL-OCCUPATIONAL BACKGROUND, STEREOTYPY, TRADITIONAL-EMERGENT VALUES, SEX, AND ACADEMIC APTITUDE OF COLLEGE STUDENTS TO COUNSELING PURSUIT

by Kent M Christiansen

The Problem

The purpose of the study was to examine the differences between users and non-users of counseling services with regard to educational-occupational background, stereotypy, traditional-emergent values, sex, and academic aptitude.

Five general research hypotheses were formulated:

1. College students who pursue counseling services at the counseling center will come from lower educational-occupational backgrounds than will non-users.
2. Students who use the services of the counseling center will have attitudes described as more mature, adaptive, and democratic (less stereotypy) than non-users who will have attitudes described as more rigid, compulsive, and authoritarian in relations with others (more stereotypy).
3. Students who use the counseling center will have values more "outer-directed" as characterized by sociability, conformity, relativism, and a present-time orientation (emergent values) than non-users whose values will be more "inner-directed" as characterized by Puritan morality, individualism, work-success ethic, and a future-time orientation (traditional values).
4. A greater proportion of female students will pursue counseling at the counseling center than male students.

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5. Students identified as users of college counseling facilities will possess lower general academic aptitude than non-users.

Research Design

Three hundred sixteen subjects were selected from a population of 2,746 students who were entering freshmen at Michigan State University in the fall of 1958 and who participated in a comprehensive battery of examinations as part of a study of critical thinking, attitudes, and values in higher education. The sample was divided into three categories operationally defined for the study as (1) educational-vocational-problem-counseled clients, (2) personal-social-problem-counseled clients, and, (3) non-clients.

A client was a student who met four or more appointments at the counseling center of which two appointments were within a two-week period of time. Non-clients were individuals who did not use the center at any time during their "normal" tenure of four years as a university student.

Educational-occupational background was measured by an Educational-Occupational Background Index developed by combining the educational attainment of the parents and the prestige level of the father's primary occupation. The Inventory of Beliefs was used to measure stereotypy, the Differential Values Inventory to measure traditional-emergent values, and the College Qualification Test to measure academic aptitude.

Results

1. Correlation coefficients among the variables studied showed a significant but low correlation of .38 between academic ability and lack of stereotypy and a correlation of $-.22$ between traditional values and educational-occupational background.

2. When the male and female samples were combined, the educational-occupational background among the three groups was not significantly different. However, a t-test between male and female non-clients showed the women to have a significantly higher educational-occupational background than the counterpart male group (significant at the .01 level).

3. The null hypothesis was rejected at the .01 level on the analysis of variance among the three groups in the area of stereotypy. A further analysis by the Scheffe method revealed that students who did not use the counseling center were more stereotypic than personal-social-problem-counseled clients. No significant differences were found among the other groups.

4. When compared separately, men non-clients were more stereotypic in their beliefs than men who visited the counseling center with personal-social problems. Also, non-client males were more stereotypic than non-client females.

5. The three groups were statistically comparable with respect to traditional and emergent values.

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6. The data indicated that a greater proportion of women pursue counseling than men, significant at the .01 level of confidence.

7. There was significant variation found in the analysis of variance among the three combined male and female groups of students in academic aptitude. The Scheffe technique found the significant difference existed between personal-social-problem-counseled clients and non-clients. No significant differences were found among the other groups nor between men and women.

THE RELATIONSHIP OF EDUCATIONAL-OCCUPATIONAL BACKGROUND,
STEREOTYPY, TRADITIONAL-EMERGENT VALUES, SEX, AND
ACADEMIC APTITUDE OF COLLEGE STUDENTS TO
COUNSELING PURSUIT

by

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DEDICATION:

To my wife, Margaret, and daughters, Maureen, Mary Ann,
and Susan, whose faith in me and whose consistent consideration
and patience made this venture worthwhile.

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CHAPTER I

THE PROBLEM

Over the years counseling centers have become accepted as an integral part of the university setting. They are faced, however, with the increasing pressures of limited funds and an ever expanding enrollment of students. Thus, there are new pressures to improve the services they offer. This improvement can be based in part upon an adequate understanding of the students who use or do not use counseling services. If the characteristics of the students are better known, it becomes possible to (1) design special intake programs for unique patterns of needs, (2) provide better matching of client with counselor, (3) locate students who need to use the facilities but who are reluctant to come, and (4) better describe the counseling clientele to neophyte counselors.

The intent of the present study is to examine the selected personal characteristics of students who use college counseling facilities for help with educational-vocational problems or personal-social problems as contrasted with students who do not use the services.

Importance of the Study

The importance of studying students who visit or do not visit the counseling center rests on the implications it has

for (1) the operation of counseling centers, (2) the orientation of students, and, (3) the designation of counselor education.

Counseling Center Operation

What McConnell and Heist said in their report on the "The Diverse College Student Population" can be further generalized to agencies such as the counseling center. "The collection of comprehensive information on interests, values, motives, attitudes, special aptitudes, and cultural backgrounds has remained a rarity; and, in schools where such a variety of data was collected, it was seldom used in 'fitting' the students to the educational program or in adapting the program to the clientele, or in dealing with the problems of individualizing instruction."¹

If the parallel holds true between colleges in general and counseling centers as suggested in the preceding paragraph, administrators of counseling centers could well make better decisions based on more accurate knowledge about the students they serve. Similarly, the approach taken by counselors might be somewhat specified by the identified characteristics of students who become clients. If the individuals are known in advance, expectations and approaches can be somewhat anticipated which in turn specify, generally speaking, personnel and procedures.

¹T. R. McConnell and Paul Heist, "The Diverse College Student Population," The American College, ed. Nevitt Sanford (New York: John Wiley & Sons, Inc., 1962), p. 226.

Student Orientation

Additional study might determine if students with varying backgrounds are equally attracted to counseling services. There may be students among the group who do not seek counseling from the counseling center who could benefit from professional aid. These students might be encouraged and educated to use the services through well-conceived programs of orientation.

Counselor Education

The counseling relationship is dependent upon the interaction of the client and the counselor to such an extent that researchers are currently investigating the similarities between the two participants. For example, client expectations and perceptions have been considered to be influential in such an interaction.² It is conceivable that clients have preferences for counselors with characteristics similar to themselves such as socio-economic background, sex, values, and attitudes. Modification of procedure by which a client is assigned to a counselor could be more explicit through actual awareness of client characteristics.

An understanding of the differences in some of the characteristics between students who do and those who do not use counseling facilities might provide a foundation upon which to

²Leonard D. Goodstein and Austin E. Grigg, "Client Satisfaction, Counselors, and the Counseling Process," Personnel and Guidance Journal, Vol. 38 (September, 1959), pp. 19-24.

base counselor action. From the data available, the counselor could draw inferences about those who seek counseling. These inferences could in turn be a basis upon which procedures are determined.

Information relative to those students they most likely would counsel might provide direction for the professional preparation of counselors. Counselors could thus be exposed early in their training to the customary reactions of students with particular patterns of characteristics. In brief, counselors might be trained to identify and help students with certain characteristics based upon the counselors' knowledge of the typical user and non-user of counseling facilities.

Purpose of the Study

The study is an attempt to determine the differences in some characteristics of college students who use or do not use college counseling services. The project is designed to seek answers to the following questions:

1. Are there differences in educational-occupational background among (a) non-users of college counseling services, (b) users who are trying to secure educational-vocational information, and, (c) users who are trying to secure counseling with personal-social problems?
2. What are the differences in stereotypy among non-users and the two groups of clients?
3. What are the differences in traditional-emergent values among non-users and the two groups of clients?

4. Are there differences between the sexes among (a) those who do not appear at the counseling center, (b) those who appear for help with personal-social problems, and, (c) those who appear to receive help with their educational-vocational problems?

5. Do differences in academic aptitude exist among non-users of the center and the two groups identified as users?

6. Do students who seek counseling with educational-vocational problems at the counseling center exhibit characteristics on the previously-listed variables similar to those who seek counseling with personal-social problems, and does either group vary from a non-client sample?

Rationale of Selecting Pertinent Variables

In a descriptive study of this type, the investigator is faced with a panorama of variables, any one of which could relate to the independent variable. Because no cohesive theory has been constructed to determine relevancy, a number of variables were selected on the basis of (1) availability of information, and (2) indications of previous investigators.

Educational-Occupational Background. The observation that the decision a person makes to seek professional aid will be influenced by his attachment to his social milieu has been noted previously.³ More specifically, Form⁴ found that college students who were products of the lower-middle social class tended to be

³Charles Radushin, "Individual Decisions to Undertake Psychotherapy," Administrative Science Quarterly, Vol. 3 (1958), pp. 379-411.

⁴Arnold L. Form, "Users and Non-Users of Counseling Services," Personnel and Guidance Journal, Vol. 32 (December, 1953), pp. 209-213.

over-represented in relation to the total school population in their use of counseling services. The evidence from these studies support the need for replicating within this study the investigation of the same variable. On the basis of the foregoing, college students who come from a lower educational-occupational background, relatively speaking, would likely take advantage of counseling opportunities to a greater extent than their counterparts who come from a higher educational-occupational standing.

Stereotypy. Stereotypy is a critical issue in a study that purports to discriminate the orientation of individuals toward receiving aid from a counseling center. Individuals who are stereotypic in their belief systems have been characterized as consistently defensive and resistant in relationships with others.⁵ This characterization appears to be obviously critical to the personal interaction in the counseling relationship. Thus, it might be assumed that the way a person feels because of his beliefs is a determinative factor in his use of counseling services.

A person described as stereotypic might be somewhat similar to the authoritarian personality described by Adorno.⁶

⁵Paul L. Dressel (ed.), Evaluation in the Basic College at Michigan State University (New York:Harper & Brothers, 1958), p.163.

⁶T. W. Adorno, et al., The Authoritarian Personality (New York: Harper & Brothers, 1950).

Paraphrasing Adorno, the authoritarian personality adheres rigidly to conventional values, is submissive to the values of outside groups, is somewhat hostile toward others, and defines self-strength as a virtue. In essence, the authoritative individual, sometimes dubbed an anti-democratic individual, seems to represent a special kind of temperamental opposition to seeking help in problem-solving. One would possibly expect from this personality a stereotypic approach to making decisions independently. Hence, college students identified as rigid, compulsive, and authoritarian in their relations with others would probably consult the counseling center less frequently than those described as mature, adaptive, and democratic.

Traditional-Emergent Values. The beliefs and actions of students are sensitively conditioned by their values. Based on the influence of these intervening values, it is probable that some students would welcome receiving psychological help as a mutual approach to supplementing inadequate information while others would perceive similar aid as a threat to themselves and the responsibility they feel they have for solving their own problems. This position is somewhat similar to Williams'⁷ explanation that values are defined by choices.

⁷Robin M. Williams, Jr., American Society: A Sociological Interpretation (New York: Alfred A. Knopf, Inc., 1952), p. 376.

Spindler,⁸ who was particularly influenced by the writings of Riesman,⁹ assumed that values centered on the degree of acceptance of the values contained in the Protestant ethic. He attempted to show this association by placing "traditional" values and "emergent" values on the opposite ends of a continuum. Hence, an individual who is oriented toward the future, who follows a work-success ethic, and who accepts the Protestant view of morality and individual responsibility is considered more traditional in his values. Emphasis on sociability, conformity, relativism, and present-time orientation accompany a person with emergent values.

The distinction between the traditional values system and the emergent values system appears to rest upon the degree of self-reliance and self-determination on the part of the individual. Because of this arrangement, students whose values are in the Riesman¹⁰ sense "outer-directed" as revealed by descriptions of sociability, conformity, relativism, and a present-time orientation would likely be more amenable to counseling than Riesman's "inner-directed" students who are asserted to have values of Puritan morality, individualism, work-success ethic, and future-time orientation.

⁸George Spindler, "Education in a Transforming American Culture," Harvard Educational Review, Vol. 25 (Summer, 1955), pp. 145-156.

⁹David Riesman, The Lonely Crowd (New Haven: Yale University Press, 1950).

¹⁰Ibid.

Sex. It has been recognized for some time that there are significant differences in the sexes in the attitudes, values, and personality characteristics of students in general.¹¹ Findings of specific differences between male and female counseling clients are also available.¹² It may be that expectations for and by women are such that they can more readily submit for counseling with problems of a personal-social nature. Dependency upon others may be easier for women. Also, it may be that they can talk about personal and social concerns with less hesitancy than men. Men may be more reluctant to seek help but when they do they possibly are more interested about making an appropriate educational or vocational decision.

Because of the implied differences, it is suggested that the dimension of sex and its effect be analyzed in regard to counseling pursuit.

Academic Aptitude. It would be logical to assume that the more intellectual ability a student possesses the easier it would be to solve his own problems. Evidence from research shows that such a supposition is not totally supported. Brighter college students appear to have just as much difficulty with

¹¹John Summerskill and Douglas Darling, "Sex Differences in Adjustment to College," Journal of Educational Psychology, Vol. 46 (1955), pp. 355-361.

¹²Frances F. Fuller, "Influence of Sex of Counselor and of Client on Client Expressions of Feeling," Journal of Counseling Psychology, Vol. 10 (1963), pp. 34-40.

personal decisions as the less capable ones do.¹³

It has already been established above that there is reason to suspect that students from contrasting educational-occupational standings will respond differently toward counseling with those from the lower groups using the facilities more often. The correlation between intelligence and socio-economic class¹⁴ would lead to the postulate that the more academically-talented students will visit the counseling center less frequently than other students because they tend to come from upper socio-economic classes. Furthermore, these students will not have the frustration of academic failure and near failure driving them to seek professional help.

Educational-Vocational and Personal-Social-Problem-Counseled Clients. Recently, Crites remarked poignantly that "Although counselors are often acutely aware of the differences which exist among the personalities of clients with different problems, very few studies have been conducted to determine how and why they differ."¹⁵ It seems to be a conventional practice to categorize clients into educational-vocational-problem-counseled

¹³"Intelligence and Personality as Revealed in Questionnaires and Inventories," Yearbook of National Social Studies Education, Vol. 39 (1940), pp. 275-281, cited by Gordon W. Allport, Pattern and Growth in Personality (New York: Holt, Rinehart and Winston, 1961), p. 65

¹⁴Kenneth Eells, et al., Intelligence and Cultural Differences (Chicago: The University of Chicago Press, 1951).

¹⁵John O. Crites, "The California Psychological Inventory As A Measure of Client Personalities" (Test Reviews), Journal of Counseling Psychology, Vol. 11, No. 3 (1964), p. 299.

clients or personal-social-problem-counseled clients depending upon the problem they present. Although these two types of counseling seekers are not completely mutually exclusive, the difference in emphasis is sufficient to accept the distinction. Yet, as the above comment suggests, little is known about how and why they differ.

Hypotheses to be Tested

It is hypothesized that certain characteristics and experiences do appreciably affect a student's attitude toward seeking professional counseling. Five pertinent aspects of the college student appear relevant to his counseling pursuit: (1) educational-occupational background, (2) stereotypy, (3) traditional-emergent values, (4) sex, and, (5) academic aptitude. The subsequent research hypotheses were formulated from the previously cited support for the study.*

1. College students who pursue counseling services at the counseling center will come from lower educational-occupational backgrounds than will non-users.
2. Students who use the services of the counseling center will have attitudes described as more mature, adaptive, and democratic (less stereotypy) than non-users who will have attitudes described as more rigid, compulsive, and authoritarian in relations with others (more stereotypy).
3. Students who use the counseling center will have values more "outer-directed" as characterized by sociability, conformity, relativism, and a present-time orientation (emergent values) than non-users whose values will be more "inner directed"

*These hypotheses are restated in testable form in Chapter III.

as characterized by Puritan morality, individualism, work-success ethic, and a future-time orientation (traditional values).

4. A greater proportion of female students will pursue counseling at the counseling center than male students.
5. Students identified as users of college counseling facilities will possess lower general academic aptitude than non-users.

Operational Definitions

Throughout the study the terms listed below refer to the accompanying definitions:

Counseling Pursuit: was determined by a student's use or non-use of a university counseling center.

Educational-Occupational Background: was determined by assigning a hierarchical classification to a student's

- a) mother's education,
- b) father's education, and,
- c) father's primary occupation.

Stereotypy: was determined by an individual's stereotypic tendency toward ideocentrism, ethnocentrism, socio-centrism, and egocentrism as measured by the Inventory of Beliefs, Form I.¹⁶

Traditional-Emergent Values: were determined by a person's position along a traditional-emergent value continuum assessed by Prince's Differential Values Inventory.¹⁷

Academic Aptitude: was determined by the Total Score on the College Qualification Tests.¹⁸

¹⁶Cooperative Study of Evaluation in General Education, Paul L. Dressel, Director, Instructor's Manual for the Inventory of Beliefs (The American Council on Education, Committee on Measurement and Evaluation, 1953). Mimeographed.

¹⁷Richard Prince, "A Study of the Relationship Between Individual Values and Administrative Effectiveness in the School Situation" (unpublished Ph.D. dissertation, University of Chicago, 1957).

¹⁸George K. Bennett, et al., College Qualification Tests Manual (New York: The Psychological Corporation, 1957).

Educational-Vocational-Problem-Counseled Clients: were determined by identifying students who met four or more appointments, two of which were within a two-week period of time, at the Michigan State University Counseling Center and whose purpose was to receive professional aid with problems which were predominantly of an educational-vocational nature as determined by the counselor's report on the individual's contact card.

Personal-Social-Problem-Counseled Clients: were determined by identifying students who met four or more appointments, two of which were within a two-week period of time, at the Michigan State University Counseling Center and whose purpose was to receive professional aid with problems which were predominantly of a personal-social nature as determined by the counselor's report on the individual's contact card.

Non-Clients: were determined by selecting every fourth subject from an alphabetical list of students whose name did not appear as having made any contact with the Michigan State University Counseling Center at any time during his college experience within the time limits of the study.

Delimitations of the Study

The study was limited to 316 students selected from Michigan State University in East Lansing, Michigan. In identifying students who used the counseling center no consideration was given to those who indicated they visited for any reason other than the criteria used for determining educational-vocational problems and personal-social problems. Undergraduate students seeking help in academic problems, change of majors, and test interpretations, were ignored as users. This limitation resulted in the omission of a number of students who made other use of the counseling center.

There was no convenient way of determining the number of individuals who may have visited outside clinics or private practitioners. Consequently this information was lacking.

Another factor which the study failed to judge was the influence that previous counseling experience may have had in inducing a subject to accept or reject counseling offerings. Numerous students were involved in a program of pre-college counseling during the summer. The measuring scales were administered subsequent to this orientation, during the fall term enrollment as beginning freshmen.

One of the variables which could not be adequately controlled was the orientation and experience of the counselor noting the nature of the problem presented by the counselee. It was assumed that the notation represented "equal" insight on the part of the various intake counselors.

Certain limitations were incumbent upon the measuring instruments used to evaluate the different criteria. One might find both solace and discontent in the fact that there are weaknesses in all methods of evaluation. For example, a format which attempts to assess values often lacks the ability to prevent the selection of those items judged to be socially desirable. Thus, to a certain degree it may reflect what a person would like to see himself as being rather than what he really is. This deficiency in the instruments, however, was not felt to seriously affect the results.

Finally, although relatedness was tested among certain criteria and an attempt was made to draw inferences from the data, it was not the intent of the study to arrive at definite statements of cause.

Organization of the Thesis

The need, importance, and purpose of the study, the research rationale, and the hypotheses to be tested have been established in Chapter I. In the remaining chapters the experimental procedure, results, and conclusions of the study are presented.

In Chapter II a review of the literature of similar studies is reported.

The research design is outlined in Chapter III. The methodology of the study is presented including the selection of the subjects, the instrumentation, and the gathering and processing of the data.

The results of the analysis of the data are discussed in Chapter IV.

A summary of the study, the conclusions and generalizations to be drawn, and the implications for future research are presented in the final chapter.

The review of literature introduced in the succeeding chapter is intended to prepare the related research in a somewhat orderly fashion as well as to form a synopsis of a comparatively larger content.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

In Chapter I some isolated studies were presented with the intent of assisting the development of a research rationale. A review of the findings of investigations directly related to the current study is reported and summarized in greater magnitude in this chapter.

Introduction

Numerous approaches have been employed in an effort to describe individuals who have been known to use various counseling facilities. Originally the methods consisted of identifying the types of problems brought to the counseling situation. Typically, and in one of the earliest surveys recorded, the students contacted reported the nature of their problems in the following priority (based on number of people who expressed concern in the respective areas): (1) educational; (2) social, personal, emotional; (3) vocational; (4) health and physical disabilities; and (5) financial.¹ Control groups were not employed, but rather the origin and source of the problems were sought. The individual bearer of the problems was largely ignored. There seemed to be an almost inherent assumption that

¹E.G. Williamson, H.P. Longstaff, and J.M. Edmunds, "Counseling Arts College Students," Journal of Applied Psychology, Vol.19 (1935), pp. 111-124.

the type of problem exhibited or expressed as well as the frequency of its occurrence was sufficient evidence that the visitor to the counseling center or the psychological clinic was atypical.

Subsequently the interest swung to the counseling relationship itself with emphasis upon the outcome. Studies using pre-counseling psychological test performance as the criterion of prognosis were often attempted. In a comprehensive review of such studies, Windle² was left without any definite conclusion about their effectiveness. Furthermore, he concluded that outcome appeared to be more strongly determined by some characteristic of the client than the therapy applied.

Windle's comments seemed to stimulate other investigators toward attempts to resolve the inconclusive results which he noted. Estimates of personality or behavior variables by both clinical judgments and test instruments were designed primarily to select those clients most likely to remain as compared with those clients most likely to prematurely discontinue the psychological-helping process. The duration of treatment was considered to be one of the most important criteria of success and failure. The use of these more sophisticated and discriminating

²Charles Windle, "Psychological Tests in Psychopathological Prognosis," Psychological Bulletin, Vol. 49 (September, 1952), pp. 451-482.

techniques resulted in evidence to support the claim that there were identifiable variables associated with length of stay on the part of the client. In the main, three classes of client variables were evaluated: demographic, intellectual, and personality.^{3,4}

It seems only natural that attention should next have shifted to a focus more precisely upon the client himself, and especially upon those dimensions that distinguished him from the non-client. In order to specify those characteristics associated with the person seeking help, more rigidly-controlled comparison groups were employed than in earlier research. Users and non-users of psychological services were subjected to study to determine those characteristics which might be related to counseling readiness, counseling pursuit, and counseling success. However, because of the contradictory results, studies of this nature are inconclusive in the research literature. The fact that there is a paucity of decisive information concerning client and non-client group characteristics has prompted the present investigation.

To initiate and administer a program of counseling services effectively it is first necessary to understand the students for

³Samuel C. Fulkerson and John R. Barry, "Methodology and Research on the Prognostic Use of Psychological Tests," Psychological Bulletin, Vol. 58 (May, 1961), pp. 177-204. See this source for a full review of these studies.

⁴Julius Seaman, "Psychotherapy," Annual Review of Psychology, Vol. 12 (1961), pp. 157-194.

whom such a program is built. By reviewing research approaches of this nature, fundamental bases for generalizations are established. The review of literature in this chapter focuses upon these approaches and their ensuing descriptions of the individuals involved.

The task of categorizing studies becomes increasingly complex when several groups and several factors are considered. For example, if an investigator purports to study seekers and non-seekers of counsel he usually considers a number of variables. There is naturally much overlap in any scope that attempts to study the multiple factors separately. Nonetheless, for the purpose of convenience and a degree of reasonable orderliness within the intention of the study, the review has been divided into the following categories: (1) the social background of students who pursue counseling, (2) the attitudes and values of clients of counseling facilities, (3) the importance of sex variation and counseling use, (4) the academic ability of students and counseling pursuit, and, (5) the distinction between counselees with personal-social problems and counselees with educational-vocational problems.

Social Background and Counseling Pursuit

Among the numerous motivational factors which bring the college student to react favorably or unfavorably to certain situations are those of a sociological basis. Parental education

and occupation are well known as elements of influence in the lives of children. Included within the studies mentioned here are additional aspects connected with the individual's background such as size of home town and economic background.

One researcher made an extensive investigation into the personal and social factors associated with users and non-users of college counseling services. In advance he had observed that:

"Obviously the social and cultural background of clients may condition their attitudes toward counselors and the counseling process. This background may generally set the course of the relationship between client and counselor. Specifically, the student's sex, socio-cultural background, economic level, social stereotypes, images, and attitudes toward himself or the counselor may be related to successful counseling."⁵

The findings generally confirmed the above proposition. In a companion report by the same author,⁶ certain background factors were isolated and found to be identified with college students and their differential use of the counseling center. Proportionately speaking, the lower-middle social class as depicted by clerical and manual occupations of fathers tended to be slightly over-represented. The magnitude of representation was based on the frequency of contacts at the counseling center in relation to the total student body. That is, the occupation

⁵Arnold L. Form, "Measurement of Student Attitudes Toward Counseling Services," Personnel and Guidance Journal, Vol. 32 (October, 1953), p. 84.

⁶Arnold L. Form, "Users and Non-Users of Counseling Services," Personnel and Guidance Journal, Vol. 32 (December, 1953), pp. 209-213.

of the father was used as a level of socio-economic status of the family. The students of a given socio-economic background who visited the counseling center were then compared with that proportion of the total school population that they occupied. Thus, equal or unequal representation was suitably determined.

Two additional background situations received recognition in the study. First, metropolitan students were largely among the non-users and yet appeared most frequently among those who visited the center more than five times. More students from the smaller towns and villages tended to appear as visitors than those with other backgrounds. Second, the majority of the respondents rated their experience with high school guidance quite negatively. Although not statistically significant, there was a tendency for "poor" or "harmful" raters to visit the student personnel center. An interesting evolvment, also, was the close association between size of community and type of guidance services of the local high school; these rose together steadily until large cities of over 100,000 were viewed. At this point the association dropped. Apparently the "best" over-all high school guidance programs existed among the medium-sized cities.

The social status of clients has been previously studied, largely in public agencies, and has been found to rather

consistently correlate with various variables such as source of referral, type of service, length of contact, success of treatment, and diagnosis. The research dealing with these relationships were reported by Lewis and Robertson⁷ prior to conducting a study which dealt strictly with a university population. In their investigation they found no significant relationship between similar clinic variables and the socio-economic status of clients. However, when the clinic group, selected from the university's psychological clinic, was contrasted with a non-clinic group of a random sample of 160 university students, an important difference was noted. Modifying Warner's Index of Status Characteristics to indicate education, occupation, and source of income of parents, the socio-economic status of the clinic sample was significantly higher than that on the non-clinic sample.

The college students used as the clinic group were primarily adjustmental cases rather than educational or vocational guidance cases as determined in the intake interview. Students with educational and vocational problems were either seen by another agency or excluded from the study. It is not unusual for the psychological clinic on a university campus to be separate from and to handle cases different from the counseling center. One

⁷Harry Lewis and Malcolm Robertson, "Socio-Economic Status and a University Psychological Clinic," Journal of Counseling Psychology, Vol. 8 (1961), pp. 239-242.

can only assume that that was the case in this study and caution should be exercised in generalizing to the counseling center.

In the first of a two-part retrospective study of a college adjustment clinic made by McKinney,⁸ he found visitors to the clinic differed from others only in the amount of problems revealed and in the fact that they placed more emphasis on emotional problems. Otherwise they were similar to their classmates. In fact, he estimated 75 percent of college students have psychological problems of varying intensity and he further pointed out that this figure is close to what other investigators had previously found.

An approach to identifying the characteristics of counselees in the second part of his study⁹ compared the first 200 consecutive applicants to the clinic with 100 consecutive cases three years later. The two groups were also compared with a random sample from the total student body. Comparisons made on ten variables showed the clinic group was somewhat dissimilar from the larger student group. The clinic group was more often from the larger cities, somewhat younger, more often freshmen,

⁸Fred McKinney, "Four Years of a College Adjustment Clinic," Journal of Consulting Psychology, Vol. 9 (1945), pp. 203-212.

⁹Ibid., pp. 213-217.

more frequently female, and differed on a psycho-neurotic scale from the unselected students. No differences were noted on academic ability, college major, or affiliation with a fraternity or sorority.

In another comprehensive report by the same investigator¹⁰ in which he limited the counselees to those with pronounced emotional problems, he found them to be less socially inclined, less happy, less realistic, lacking in personality integration, and lacking in enduring motivation. But contrary to his previous study he found no differences when he compared this group with an applied psychology class, assumed to be representative of the total university, in terms of sex, age, size of home town, use of time, nature and presence of problems, economic background, ability, and achievement.

Social background seems to be positively correlated with clients who are inclined or referred to agencies that specialize in psychological aid with personal and emotional difficulties. McKinney's reports dealt with a personality clinic and a clinical psychologist as the therapist. Lewis and Robertson's study likewise had its setting in a psychological clinic. The higher the social status the seemingly greater likelihood that the individual received treatment intended as more

¹⁰Fred McKinney, "Case History Norms of Unselected Students and Students with Emotional Problems," Journal of Consulting Psychology, Vol. 11 (1947), pp. 258-269.

intensive such as psychotherapy.

College counseling services as a rule are more limited to providing help to students who bring less severe problems for discussion. The only investigation that concerned itself with a university counseling center reported in this section showed that students from the general student body who visited the center were more often below the upper middle-class status.

From these limited studies one might contend that students from a higher social standing are more oriented toward receiving psychotherapy while students seeking help with career planning and personal adjustment of a less severe nature are more apt to be from a lower social status which stresses vocational achievement and personal success.

Attitudes and Values and Counseling Pursuit

It is to be expected that a pattern of ideological forces lends weight to the preferences some people have in their approach to problem-solving. Attitudes and values are inseparably connected with a student's personality and bias his choice, judgment, and action. The research reported in this section extends, therefore, to other personality variables that may not "technically" fall under the rubric of attitudes or values. Their inclusion was felt justified because they help influence

and explain possible relationships between students' attitudes and values and their differential use of counseling services.

Using the norm group on which the Brown and Holtzman Survey of Study Habits and Attitudes was developed as a normal population, male volunteers to a counseling center differed from those required to go for scholastic probation and the norm group. Probationers and volunteers were about the same in their attitudes toward school and both differed from the test-basis group.¹¹

The major reasons for including the above study were three-fold: (1) the acceptance of the population on which the Survey of Study Habits and Attitudes was standardized as a control group, (2) the general conclusion reached that clients who volunteer for counseling are more "open" to discussing themselves while non-volunteers are more "defensive," and, (3) the attitudinal differences as demonstrated by their test performances on the Survey of Study Habits and Attitudes. Undesirable attitudes toward teachers, classrooms, and other elements of scholastic life are perhaps not too far removed from the attitudes toward student personnel workers.

¹¹Robert P. Anderson and James E. Kuntz, "The 'Survey of Study Habits and Attitudes' in a College Counseling Center," Personnel and Guidance Journal, Vol. 37 (January, 1959), pp. 365-368.

The Counseling Center at the University of California has been participating in continuing research along the lines of client and counselor personality characteristics and their relationship to counseling. Appropriately their first report was entitled "Personality Differences Between Students Who Do and Do Not Use A Counseling Facility."¹² The approach used attempted to measure cognitive and intellectual variables by use of the Myers-Briggs Type Indicator (MBTI), a personality instrument fashioned after Jungian theory on four dimensions: Judgment-Perception, Thinking-Feeling, Sensation-Intuition, and Extraversion-Introversion. This self-descriptive, forced-choice inventory was administered to 72 male and female students who appeared at the Counseling Center voluntarily for vocational, educational, or/and personal counseling within one year after enrolling as freshmen. The MBTI had been previously administered to a random sample consisting of one-sixth of the freshman class. This control group consisted of 97 males and 103 females who during the same time sequence did not make an appearance at the Center. They were assumed to be similar to the non-control group in intelligence, age, education, socio-economic status, and other important variables.

¹²Gerald A. Mendelsohn and Barbara A. Kirk, "Personality Differences Between Students Who Do and Do Not Use A Counseling Facility," Journal of Counseling Psychology, Vol. 9 (1962), pp. 341-346.

The investigators concluded that, "Compared to the nonclient Ss, the students who seek counseling score less toward the judging side, more toward the intuitive side, less toward the feeling side and more toward the introversion side of the respective dimensions. It was suggested that the customary attention to subjective experiences characteristic of the intuitive type and the greater tolerance for or enjoyment of ambiguity characteristic of the perception type predisposes such individuals to make use of the counseling approach."¹³ More specifically, the dimensions which discriminated significantly between the two groups were Judgment-Perception and Sensation-Intuition. The more intuitive individual who required less concrete patterns of sensation was more likely to use counseling services. Analysis of the former dimension indicated the differences were attributable to male clients who significantly varied from female clients. The male who was less likely to make a judgment about something was more apt to become a client.

One might easily speculate from the results of the study previously cited, as did the authors, and state the importance of attitudes on the part of individuals when it comes to

¹³Ibid., pp. 345,346.

receiving assistance in the decision-making process. By the same token, the authors were also somewhat amazed to find no significant differences in the dimension of Thinking-Feeling, a dimension frequently mentioned as an important counseling variable.

A self-concept investigation¹⁴ of college freshman seekers and non-seekers of counseling produced no evidence to support the claim of less self-understanding on the part of the help-seeker. One finding of variation did occur in the area of interest where counseled students showed the highest mean in this measurement. This tendency characterized the belief of many that clients are particularly motivated to enlarge and explore their vocational and academic interests. Furthermore, the significant difference occurred among male students who supposedly are more vitally involved in identifying an aspiration and interest of career import.

In a related self-concept research project¹⁵ an opposite finding to the previous study was made. The client was found to approach counseling through "subjective" feelings of discomfort with himself rather than "reality" factors of being unacceptable or unworthy in the estimation of his fellow students.

¹⁴Ross W. Matteson, "Self-Perceptions of Students Seeking Counseling," Personnel and Guidance Journal, Vol. 36 (1958), pp. 545-548.

¹⁵James S. Terwilliger and Fred E. Fiedler, "An Investigation of Determinants Inducing Individuals to Seek Personal Counseling," Journal of Consulting Psychology, Vol. 22 (1958), p. 288.

Over the years the MMPI has received considerable study as a predictor instrument. Parker¹⁶ referred to an unpublished study in which the use of the MMPI at the time of freshman orientation was unable to predict personal counseling students from a control group. In his own study, Parker noted that the long form of the MMPI was able to predict students who would subsequently seek personal counseling whereas the short form of the MMPI failed to do so. However, both forms accomplished the task if administered at the time of counseling. In addition, judges were able to identify MMPI profiles from either the first or second test-setting for the counseled group when they were scrambled, but they were not able to consistently do so for the non-counseled group. The control group did not vary from orientation time until the time of the second test.

One additional aspect of the experiment was to measure motivation for treatment. Motivation was determined by the client's feelings of tension, manifest anxiety, interest in getting help, feeling he must have help. Poor motivation was determined by ambivalence about getting help, referred by administration, feeling he ought to do this by himself. Two judges rated the candidates by reading notes taken at the time of the intake interview. Although they initially rated them on

¹⁶Clyde A. Parker, "The Predictive Use of the MMPI in a College Counseling Center," Journal of Counseling Psychology, Vol. 8 (1961), pp. 154-158.

a six-point scale from low to high, the scale was collapsed to form merely a high motivation group and a low motivation group. The inter-judge correlations were only moderately high but nonetheless the criterion used for judging was considered by the investigator as worthy for use in selecting motivated persons for personal counseling.

Whereas Parker had been able to show the MMPI to be a useful discriminator between a counseled group and a non-counseled group, a comprehensive study¹⁷ conducted in a counseling center at a large midwestern university failed to do so. In his doctoral dissertation, the investigator discovered no significant differences of any consistency between clients and non-clients. Three hundred cases of visitors and non-visitors to the counseling center were studied on 20 items of data including 12 MMPI T-scores, the American Council on Education T-score, grade point average, chronological age, and five indexes derived from the MMPI: (1) Behavior Problem, (2) Neurotic Index, (3) Psychotic Index, (4) Anxiety Index, and, (5) Internalization Ratio.

The contradictory findings may be attributable to several factors. It should be remembered that McCain used

¹⁷Robert Francis McCain, "A Descriptive and Comparative Study of Personality Characteristics of Clients and Non-Clients At a University Counseling Center" (unpublished Ph.D. dissertation, University of Wisconsin, 1954).

students appearing for educational, vocational, personal or social problems while Parker restricted his clientele to people with personal problems. The control group in Parker's study was limited to students involved in either education or general psychology classes. Students on various campuses are apt to perceive differently the services of a personnel agency such as the counseling center. The religious orientation of students attending the Brigham Young University, for example, may dispose them quite frequently to seek help through other sources.

Roth¹⁸ devised a method he felt was practical for identifying prospective counselees. He assumed that poor adjustment and high anxiety would characterize visitors to a college counseling center. The California Test of Personality and the Manifest Anxiety Scale selected by Roth were given to the entire freshman class and the resulting scores broken into quartiles. Expected scores were determined. The scores of a group of students who sought counseling were analyzed by chi-square values and found to possess a combination of poor adjustment and high anxiety significantly contrary to the larger population. Roth admitted that there were undoubtedly other factors involved in the student's motivation to seek professional counseling.

¹⁸Robert M. Roth, "A Method for Identifying Prospective Counselees in College," The Journal of Educational Research, Vol. 56 (January, 1963), pp. 275-276.

An attempt¹⁹ was made recently to hold "exposure to the availability of counseling service" constant by testing all subjects and immediately exposing them to the possibility of entering into a counseling relationship. The Mooney Problem Check List was given to selected introductory psychology students near the end of the winter term. In lieu of the usual essay questions at the end of the Check List, a dittoed sheet was inserted. The subject was informed of the availability of both counseling services and qualified counselors. Each one was asked to indicate if he were interested in taking advantage of the opportunity for counseling which was offered. He responded by checking whether he was very interested, interested, neutral, not too interested, or not at all interested. Those people endorsing either the first or second category were contacted by letter or telephone and invited to come in. They were reminded of their initial endorsement and invited to make an appointment.

Analysis showed that the three groups (clients, potential clients who changed their minds, and students who checked one of the three remaining alternatives) differed on five scales of the Mooney Problem Check List. The scales were: (1) Health

¹⁹Ernest J. Doleys, "Differences Between Clients and Non-Clients on the Mooney Problem Check List," The Journal of College Student Personnel, Vol. 6 (October, 1964), pp. 21-24.

and Physical Development; (2) Finances, Living Conditions, and Employment; (3) Social-Psychological Relations; (4) Personal-Psychological Relations; and (5) Adjustment to College Work. The remaining non-differentiating scales were: (1) Social and Recreational Activities; (2) Courtship, Sex, and Marriage; (3) Home and Family; (4) Morals and Religion; (5) The Future, Vocational and Educational; and, (6) Curriculum and Teaching Procedure. In all cases the clients expressed significantly higher scores on total problems than did the non-interested subjects. The group that showed an interest but later changed their mind about receiving help were much more variable, perhaps symptomatic of why they changed their minds. The investigator felt that counseling readiness might be a person's admission of certain areas of concern.

It is rather obvious that the differences could be somewhat tainted due to the formal letter or telephone call inviting the students to pursue counseling. Had the investigator permitted the students to appear of their own volition the study would have been free from the response to an "authoritative" request. The timing and selection of subjects were not the most adequate. Representation of the total college was not sampled. The end of the winter term was rather late for many students. How the researcher estimated he was "introducing" the possibility of receiving counseling for the first time appears to be beyond

comprehension. Certainly the majority of students must have been aware that the services were available before this. Also, nothing was said regarding those who may have made contact with a counselor during the previous two quarters.

Expressed attitudes toward counseling and counselors tend to be favorable not only by those students who take advantage of it, but also by members of college campuses who have not yet had direct contact with the facility. This favorable opinion is evidenced in two studies of college counseling centers in the midwest. Student reaction toward counselors and personnel services at Michigan State University²⁰ were obtained by means of a Counseling Attitude Scale. It was noted that 84 percent of those surveyed held favorable attitudes toward university personnel services while the remaining indicated mild, indifferent, or negative responses. An interesting observation was the fact that even though 40 percent of the number queried had never used the agency they still reported a feeling of favorableness toward the counseling organization and personnel.

A follow-up study aimed at measuring expressed satisfaction with counseling services at the University of Chicago²¹ showed

²⁰Arnold L. Form, "Measurement of Student Attitudes Toward Counseling Services," Personnel and Guidance Journal, Vol. 32 (October, 1953), pp. 84-87.

²¹E.H.Porter, Jr., "Clients' Evaluations of Services at the University of Chicago Counseling Center," Journal of Counseling Psychology, Vol. 4 (1957), pp. 274-281.

a favorable attitude among former users. It was felt that "a training center can operate a service valued in the community."²² The reasoning for such a conclusion seemed to be based on the time lapse and the fact that these individuals were no longer affiliated with the university at which they received their help. The respondents had no apparent "axe to grind," and in addition they were in a position to relate the assistance they received to their present situation.

According to Woodruff,²³ who has done considerable study of the roles of values in human behavior, attitudes are temporary states of readiness to act based upon an individual's more fundamental value structure. Values and attitudes are considered important and decisive factors influencing behavior. Thus, the way a person feels because of his beliefs, prejudices, opinions, loyalties, and preconceived notions is probably as determinative, if not more so, than his cognitive understanding. Because this emotional complex permeates the total personality, directions along many given affective continua studied by researchers were considered appropriate for review under the preceding section.

²²Ibid., pp. 280, 281.

²³Asahel D. Woodruff and F.J. DiVesta, "The Relationship Between Values, Concepts, and Attitudes," Educational and Psychological Measurement, Vol. 8 (1948), pp. 645-659.

In summary, a thorough search of the literature failed to uncover any evidence of major studies being conducted for the explicit purpose of determining whether or not there were any significant differences between users and non-users of college counseling services in terms of attitudes and values as identified in this study. The studies selected did provide background information on other personality correlates as they relate to counseling pursuit.

The non-counselee appeared to be more judgmental and less tolerant of ambiguity. He required more concrete proof of sensation and was somewhat less appeased by subjective experiences. His mode of "adjustment" and level of "anxiety" were somewhat more nearly "normal" than the student who sought professional help, although the results of one detailed doctoral study indicated evidence that would not support these findings. In addition, the non-counselee had ambivalent feelings about receiving help and possessed rather strong feelings he ought to work out a solution to his problems by himself.

Verbalized attitudes on the part of both users and non-users indicated a healthy appreciation for the services and personnel involved in college counseling settings. Attitudes toward school in general in one study reported were more favorable among a norm group used for the Brown and Holtzman Survey of

Study Habits and Attitudes than for male counselees. It must be remembered that this study, at best, has only indirect relevance to the present problem since no distinction was made regarding use of professional counseling on the part of the control group.

The importance of self-concept, which can be regarded as a reflection of attitudes turned inward, was not clearly identified in the studies reported here. In a later section of this chapter* the research reported which dealt with self-descriptions as revealed by adjective check lists showed that clients appeared to have a more negative "self-concept" than did non-clients.

Sex and Counseling Pursuit

Over the years researchers have devoted a considerable amount of attention to studying the influence of the sex of the client upon problems under investigation. Likewise, reasons for unequal attraction of persons and places for help in solving problems has been assumed to be partly due to beliefs and expectations held with respect to men and women.

By and large, as evidenced in the literature, men less frequently appear for consultation with their problems at a

*See pages 48-54.

college counseling center and when they do appear they are more apt to discuss problems of an educational and vocational variety while women more frequently discuss personal and social difficulties.^{24,25,26} Male clients were also found to be slightly below female clients on three academic aptitude scales.²⁷ Male seekers of guidance were significantly higher in interest aspiration as measured by the Lee-Thorpe Occupational Interest Inventory.²⁸

A previously cited study²⁹ using the Myers-Briggs Type Indicator accounted for some differences along the Judgment-Perception continuum between users and non-users of a counseling center. When a detailed examination was made the differences were attributed to variance between male and female clients. The former, who were less judging in their nature, were more prone to accept the need for receiving counsel.

Generally, college women were less reluctant to seek counseling aid, especially of a personal content. When college

²⁴Form, op. cit., Vol.32 (December,1953), pp. 209-213.

²⁵Herbert A.Carroll and Helen M.Jones,"Adjustment Problems of College Students," School and Society, Vol.59 (1944),pp.270-272.

²⁶Lewis and Robertson, op. cit.

²⁷Williamson, Longstaff, and Edmunds, op. cit.

²⁸Matteson, op. cit.

²⁹Mendelsohn and Kirk, op. cit.

men accepted professional counseling they commonly wanted help with vocational or educational concerns. Very limited information suggested a slight superiority in ability on the part of the females. Women, who were less judging, appeared to be more amenable to admitting need for psychological services. Likewise, the frequency with which they visited suggested more of a willingness on their part to engage in such interpersonal relationships.

Academic Ability and Counseling Pursuit

One of the most popular characteristics to be examined whenever differences between groups of individuals are sought is the attribute of intelligence, ability, or aptitude. This, of course, usually refers to academic aptitude if the subjects are college students. Three theoretical camps are evident with respect to the importance of native ability as a determinant in seeking help with problems or decisions. The one group rationalizes that the more intelligently alert individual will recognize his difficulty and understand the advisability of receiving aid. Another group argues that readiness for outside assistance is largely dictated by multiple factors of which academic aptitude is one but an insignificant one, and when compared with the total student body those who seek help are but a true representation of the larger universe with respect to this aspect. There are still others who would hold to a

stronger point of view, namely, that an inverse relationship exists between academic aptitude and the motivation for receiving help.

Divergent conclusions have been drawn as to the representativeness of academic ability of students who have been counseled. One³⁰ of the first comprehensive studies to compare users and non-users of college counseling services revealed no significant differences with respect to aptitude for college work, high school scholarship, measured personality traits, and measured interests between the two groups.

Another study³¹ conducted at another university showed the opposite findings. At the latter institution students who went for counseling were not considered to be a representative cross-section of the freshman class as a whole. Based on a scaled score derived from pre-registration classification tests, the more able student appeared for guidance. They were likewise the equal if not somewhat better than non-counseled students in scholastic achievement. Students who appeared with problems of emotional or social adjustment when separated from students with vocational or educational problems were

³⁰Gwendolen G. Schneider and Ralph F. Berdie, "Representativeness of College Students Who Receive Counseling Services," Journal of Educational Psychology, Vol. 33 (1942), pp. 545-551.

³¹Warren R. Baller, "Characteristics of College Students Who Demonstrate Interest in Counseling Services," Journal of Educational Psychology, Vol. 35 (1944), pp. 302-308.

likewise better-than-average in ability but were noticeably inferior on academic achievement. The author thought scholastic difficulties were the result or at least the companion of personal or social problems. The remaining group of counselees were not separately compared with the larger reference group.

Although some of the measuring devices used in the two studies were similar, there was still enough variability in the tests used singly to help account for the contradiction.

In a limited study³² it was found that based on a college aptitude rating, high school scholarship percentile rank, and college aptitude percentile rank, most of the 371 students seen by counselors at the University of Minnesota Testing Bureau were above the fortieth or fiftieth percentile on all three scales. Males were slightly below the females on these ratings. In general, skepticism was raised regarding the commonly-held belief that students of high ability tend to solve their own problems without aid, although nothing conclusive could be drawn because of the sample used. Only students from one college within the university were included, and students with academic difficulties were seen by advisers outside of the counseling bureau, both factors highly important in making for biased results.

³²Williamson, Longstaff, and Edmunds, op. cit.

In a psychological clinic³³ which concentrated upon emotional and social guidance, the average intellectual status of its clients was the same as that of the student body in general. However, one marked difference appeared. At the upper extreme of the American Council on Education Test percentiles, 16 per cent of the subjects fell within the 90-99 percentile range instead of the expected 10 per cent. Perplexing and unanswered possible reasons were then raised:

1. "It may be that intellectually gifted college students are more unstable emotionally than those of less ability."

2. "It may be that, being very intelligent, they are more likely to recognize their maladjustments and to understand the desirability of seeking professional help."

3. "It may be that our colleges and universities, geared to meet the needs of typical college students, provide frustrations for the superior deviate which he cannot master."³⁴

The previous researcher noted the peculiarity of a high percent of counseled students in the upper percentiles of an academic ability test although on the average they were not unlike the total student body. Perhaps enough students in the lower ranges of the percentiles seek assistance so that the two extremes balance one another.

³³Carroll and Jones, op. cit.

³⁴Ibid., p. 271.

Along these same lines, Williamson and Bordin observed that "It is interesting to note that the students who are counseled by the Testing Bureau, contrary to the opinions of many, are not students of inferior ability, but, if anything, are slightly superior to the general undergraduate population of these two colleges."³⁵ The two colleges mentioned referred to the General College and the College of Science, Literature and the Arts at the University of Minnesota.

Experience may be a more powerful force than merely intellectual potential alone for a student to benefit from counseling. Williamson and Bordin³⁶ also discovered that both "cooperation" and "adjustment" by the counselee in the counseling process were related to past achievement while ability as measured by an aptitude test was not. When students experiencing educational and vocational problems were isolated from those experiencing social and personal problems there was a greater expectancy of cooperation on the part of the former. One can be easily misled, however, unless he remembers that this particular agency was primarily oriented toward educational

³⁵E. G. Williamson and E.S. Bordin, "A Statistical Evaluation of Clinical Counseling," Educational and Psychological Measurement, Vol. 1 (1941), p. 125.

³⁶Ibid., pp. 117-132.

and vocational counseling. In fact it was really this type of counseling that was being evaluated. Also, it might be considered much easier to become involved in areas of concern that are not nearly as "threatening" to oneself.

The discussion whether ability or achievement is a better index as a determinant in seeking counsel is partially resolved when one considers "over-and under-achievers." Over and under-achievement was studied by one educator³⁷ who observed the difference in scholastic aptitude and scholastic achievement of users and non-users. Neither group appeared to possess unequal over- or under-achievers. The direction of difference in grade point average was higher for the client group but not significantly so.

Based on his data, Form³⁸ thought that non-users of the counseling center might be academically as well as socially and emotionally well adjusted, even more so than users. His results showed above average grade point averages were achieved by a larger proportion of non-users. Those found to be lower in academic performance tended to appear for counseling proportionately and frequently more. The student's academic ability, however, was not taken into account.

³⁷McCain, op. cit.

³⁸Form, op. cit., Vol.32 (December, 1953), p. 211.

There seems to be contradictory evidence that the intellectual ability which college students exhibit is a disposing factor to seeking counsel. Considering all the studies reviewed some support is marshaled for counseled students to resemble the larger group from whence they come. One study offers the possibility that the very bright will seek help to a greater extent than will their less able counterparts. These students seem to be located in the upper extremities of a percentile ranking. However, because no average differences were consistently proven the assumption was made that a counter-balance was achieved by a rather substantial number of low ability students who seek help with vocational, educational, and personal difficulties.

Educational-Vocational and Personal-Social Counseling Pursuit

It is generally conceded that problems are interrelated. Any attempt to categorize a complex situation is difficult. The separation of clients used here is inferred to be valid because of (1) the distinctions established between the two groups in previous research, (2) the rationale that classification increases the counselor's understanding and effectiveness, and, (3) the finding³⁹ that students in the general student body

³⁹Paul T. King and Ross W. Matteson, "Student Perception of Counseling Center Services," Personnel and Guidance Journal, Vol. 37 (January, 1959), pp. 358-364.

tended to mentally visualize a counseling service as rendering aid with educational-vocational problems or personal-social problems, but not necessarily both.

Gaudet and Kulick⁴⁰ were interested in determining if those people who came to a vocational guidance center were atypical and suffered from problems not usually found in the population as a whole. By use of the Minnesota Personality Scale they compared disabled veterans who requested educational or vocational guidance with the sample used for the establishment of the norms for the Minnesota Personality Scale.

As another part of the same venture 200 clients accepted for counseling on a private basis who indicated problems of a personal-social nature were pitted against 200 similar clients with concerns about vocational and educational plans. Highly significant differences between the two groups were found in social adjustment, family relations, emotional adjustment, and economic conservatism. No differences were found on the Morale Scale of the Minnesota Personality Scale.

They concluded that "Individuals who seek vocational and educational guidance have problems of emotional, social, and

⁴⁰Frederick J. Gaudet and William Kulick, "Who Comes to a Vocational Guidance Center?" Personnel and Guidance Journal, Vol. 33 (December, 1954), pp. 211-214.

familial adjustment similar to others composing a normative sample. Persons seeking personal-social guidance are more poorly adjusted socially, emotionally, and in their family relationships than those requesting educational-vocational guidance."⁴¹

Since the client marked the form indicating the problem, there might have been some personal contamination. A vocational-educational presentation may be additionally complicated by an underriding personal problem more so than the dichotomy achieved when the nature of the problem is identified by the client rather than the professional helper. One must also not forget that these were disabled veterans outside of a college setting.

In an attempt to measure this very essence of a vocational and educational client being confused by personality problems, Merrill and Heathers⁴² quantitatively assessed counseling center clients "showing some emotional disturbance" with another group of counseling center clients who did not. Using a 58-item list of adjectives it was found that 31 of the items had t-ratios of at least 2.00 between the contrasting sets. These

⁴¹Ibid., p. 214.

⁴²Reed M. Merrill and Louise B. Heathers, "The Use of an Adjective Checklist as a Measure of Adjustment," Journal of Counseling Psychology, Vol. 1 (1954), pp. 137-143.

two male groups were later compared with 400 male freshmen who composed a control group of non-clients. The abbreviated adjective list sharply separated the clients with problems from the controls at the 1% level of significance and the second set of clients from the controls at the 5% level of significance. Those experiencing personality problems considered themselves not as happy, confident, well-liked, socially oriented, or emotionally balanced persons. It was wisely acknowledged that there was a lot of overlap in personality test scores.

In order to more adequately compare personality in the patterns of college students in a related study⁴³ a number of control groups was employed: 618 Minnesota MMPI normals, 1763 Minnesota psychiatric cases, 100 State University of Iowa freshmen, and 3996 University of Wisconsin counselees. Those individuals who arrived for help with personal adjustment problems seemed to be less well adjusted on the MMPI than vocational-educational counselees and controls and vocational-educational counselees were more poorly adjusted than controls.

Much information was lacking to adequately comment on this report. The use of multiple groups from various locales introduces too many outside influences to confidently attribute the differences to the nature of the clients alone.

⁴³W. Grant Dahlstrom and Dorothy Drakesmith Craven, "The Minnesota Multiphasic Personality Inventory and Stuttering Phenomena in Young Adults," American Psychologist, Vol. 7 (1952), p. 341. (Abstract).

An attempt to identify the maladjusted college student was made by Kleinmuntz⁴⁴ who developed a scale drawn from the MMPI profiles, excluding the Mf scale, by selecting 43 items which highly discriminated between "adjusted" and "maladjusted" students who appeared at a mental hygiene clinic. The "adjusted" group was selected from 40 male and female college students required to take the MMPI for a teachers college but who had not at any time received psychological treatment from the clinic. The "maladjusted" were voluntary appearers or referrals who remained for three or more interviews. The same items were analyzed from the MMPI records of two new groups at the Carnegie Institute of Technology. Once again the mean differences on the raw scores were highly significant between the adjusted and maladjusted students. Clusters of clinical interpretations which characterize the maladjusted were described. This study is pertinent to the present problem only as it relates to the two succeeding studies.

At a western university⁴⁵ Kleinmuntz's items discriminated among students at the time they presented themselves for counseling but not during a routine battery during orientation

⁴⁴Benjamin Kleinmuntz, "Identification of Maladjusted College Students," Journal of Counseling Psychology, Vol.7 (1960), pp.209-211.

⁴⁵Clyde A.Parker (Letter to the Editor), Journal of Counseling Psychology, Vol. 8 (1961), pp. 88-89.

week prior to school enrollment. Notwithstanding Kleinmuntz's claims, his battery was thus discredited as a practical screening device.

Kleinmuntz⁴⁶ quickly replied and maintained the usefulness of the instrument for identification of those traits even if they did not assuredly predict in all cases. He supported its predictive power by pointing out that of 126 freshman students who took the so-called "Maladjustment Scale" at time of entrance into school and later appeared for counseling it would have been possible to accurately predict 84 percent who appeared for vocational-academic counseling and 72 percent for calls involving emotional problems. This adjustment-maladjustment indicator did not attempt to separate into the two categories but the two groups were calculated separately; hence, the distinction.

In a unique approach devised to test the validity of Berg's Deviation Hypothesis, Grigg and Thorpe took the deviant responses of a sample of normal college students on an adjective check list and checked 1400 entering freshmen at the University of Texas, hypothesizing that "those who become therapy clients

⁴⁶ Benjamin Kleinmuntz, "Screening: Identification or Prediction?" Journal of Counseling Psychology, Vol.8 (1961), pp. 279-280.

would check more of the rare words and fewer of the common words than would the non-client members of the population."⁴⁷ A deviant response was interpreted to mean both the absence of a check on a typical adjective and the selection of an atypical adjective, thus a response signifying unusualness. The final tally consisted of 33 commonly selected adjectives and 39 uncommonly selected adjectives as determined by the original sample.

By the end of the freshman year, out of the 1400 beginning students 24 had reported for psychiatric help, 37 for personal-adjustment counseling, 186 for vocational-educational counseling. A randomly selected group of 150 non-seekers were inserted as a control group. The two groups who sought aid with their personal problems exhibited more personality deviations on this response device than did members of the vocational-educational group and the non-counselee group. A further check revealed the relatedness of the two groups seeking personal help as well as the relatedness of the control group and the vocational-educational group.⁴⁸

In another investigation,⁴⁹ a sample of people who sought

⁴⁷Austin E. Grigg and Joseph S. Thorpe, "Deviant Responses in College Adjustment Clients: A Test of Berg's Deviation Hypothesis," Journal of Consulting Psychology, Vol. 24 (1960) p. 92.

⁴⁸Ibid., pp. 92-94.

⁴⁹Alfred B. Heilbrun, Jr., "Personality Differences Between Adjusted and Maladjusted College Students," Journal of Applied Psychology, Vol. 44 (1960), pp. 341-346.

help with problems of a personal nature at a university counseling service, another group who sought help with vocational and educational problems, and a control group selected from various undergraduate psychology courses were defined as maladjusted, adjusted counseling group, and adjusted, respectively. Using Gough's Adjective Check List and the pooled judgment of expert raters the findings showed promising agreement, especially for the men. The adjusted-counseled group resembled the adjusted group and both were significantly different from the maladjusted group. It should be remembered that both the maladjusted and the adjusted-counseled were alike in seeking aid and on being individually tested at the commencement of counseling, thus emphasizing the adjustment-maladjustment analysis.

The maladjusted college male was characterized by ". . . lower need for achievement; less orderly; less likely to seek out friends; more desirous of being cared for; less dominant in his personal relationships; more likely to feel inferior, timid, and inadequate in relating to others; less able to see something through once it is started; more aggressive; and perhaps less driven heterosexually." The maladjusted college female was characterized by ". . . less orderly; less conforming or conventional and more independent; more likely to feel inferior, timid, and inadequate in relating to others; less willing or able to give in a concrete or emotional way to others; and less

able to see something through once it is started." According to the Adjective Check List but not the judges' ratings the maladjusted woman had a greater need to be cared for and a greater need for change.⁵⁰

In a study⁵¹ very closely related to the present undertaking, it was hypothesized that the California Psychological Inventory would serve as a reliable discriminator of potential counselees for a university counseling service and it would even specify patterns of scores differently between those who apply with personal-social problems and those with vocational-educational problems. Three categories of students randomly selected, were found by analysis of variance technique to be different. Vocational-educational clients occupied an intermediate position on the ladder of adjustment between a non-client group and the more poorly adjusted clients with personal-social concerns. This was true for both males and females in general adjustment as measured by profile elevation and adjustment modes as measured by profile shape.

When the significant analysis of variance results were further analyzed by t-tests between every possible pair of

⁵⁰Ibid., pp. 344-345.

⁵¹Leonard D. Goodstein, et al., "The Use of the California Psychological Inventory in a University Counseling Service," Journal of Counseling Psychology, Vol. 8 (1961), pp. 147-153.

sub-scales there was some variation for the sexes. The authors generalized from inspection that these differences rested on the measures of socialization, maturity, and responsibility or, the measures of intellectual and interest modes, both general classifications of the test used. The California Psychological Inventory elevation and shape varied with the adjustment status of the person. Support was provided for use of the CPI in a university counseling service as (1) an aid in referral of individuals with severe personal-social problems to other agencies; (2) a possible screening device to refer potential cases to the counseling center for assistance; (3) a means of specifying if a particular problem is more likely to be personal and social or vocational and educational in nature.⁵²

An indication of the mounting interest in examining the relationship between personal characteristics of clients and their different problems is epitomized in a recent publication.⁵³ Using factor analyses and profile analyses of client personalities and their measurement on the California Psychological Inventory, the author summarized the findings and drew

⁵²Ibid., p. 152.

⁵³John O. Crites, "The California Psychological Inventory as a Measure of Client Personalities" (Test Reviews), Journal of Counseling Psychology, Vol. 11 (1964), pp. 299-306.

some interesting descriptions of two types of clients: (1) personal-adjustment (PA) and (2) vocational-educational (VE), and non-clients (NC). Although he was careful to announce that the characterizations were tentative and required additional research verification, composite summaries were nonetheless made.

"The PA client closely resembles what might be called the Rebellious Intellectual. He is bright and insightful and resourceful but also discontented and impulsive and withdrawn. He tends to be less well-adjusted than others both personally and socially. He is analytical and intrceptive and questioning, on the one hand, but egoistic and pleasure-seeking and sarcastic, on the other. He places a high value upon individual rights and liberties, but is demanding and manipulative of others. He has a strong need for affection but can neither receive nor give love without embarrassment and self-consciousness. He suffers from conflicting tendencies to be autonomous and independent and self-reliant, on the one hand, and to be conforming and dependent and passive, on the other. He is appreciative and idealistic and sympathetic, but by the same token is cynical and hostile and resentful. In short, he is an enigma -- a myriad of contradictory attitudes and moods and values, most of which find expression, in one form or another, in the particular kinds psychosocial problems he brings to counseling.

"In contrast, the VE client can be characterized as the Cautious Commiter, whose behavior is consistent and predictable and stable. He moves deliberately and tentatively in decision-making and problem-solving, even to the point of indecisiveness, and sometimes prolonged inaction. He has a low tolerance for ambiguity and avoids taking risks as much as possible. He seeks structure in his daily living and planning for the future, and, when he finds it, he is dependent upon it. He seldom questions rules and regulations, although he may unconsciously resent them. He conforms in adjusting to life and its problems by making the expected response, the modal response. He is submissive and compliant before authority. He is

conventional and stereotyped in his thinking, which may also be somewhat confused, and he lacks insight into his motives and those of others. At his best, he is conscientious and industrious and obliging; at his worst, he is anxious and inhibited and slow. It is not surprising, therefore, that he comes for counseling when he is under pressure to declare himself vocationally or to achieve educationally, since he lacks the confidence in his ability to cope effectively with such problems on his own that is necessary for further vocational and educational development.

"Finally, the nonclient has been identified as the Reasonable Adventurer (Heath, 1959). He is free of the autonomy-conformity conflicts of the PA client, which he has resolved through developing a tolerance for different points-of-view while maintaining his own non-dogmatically, and he is able to make decisions effectively and realistically, without the inhibiting doubts and misgivings of the VE client. Moreover, the nonclient is confident and enterprising and resourceful. He is a potential leader who controls and directs the activities of others but who also respects their opinions and rights. He possesses self-confidence and self-respect, and he participates in life optimistically and wholeheartedly. He assumes personal responsibility for the consequences of his actions and social responsibility for the welfare of others. He is the healthy or mature personality. Many counselors would consider him the ideal for their clients who fall short of his equanimity and perspicacity."⁵⁴

Notwithstanding the comprehensive descriptions above which lack verification, sufficient studies have been undertaken to document the validity of considering counselees seeking help primarily with educational or/and vocational problems as being characteristically somewhat different from other counselees whose major concerns are of a personal or/and social nature. In addition, one of the other studies showed that counseling

⁵⁴Ibid., pp. 304-306.

center visitors and non-visitors alike perceived that agency as a place to take their problems if they were educational or vocational and again if they were personal or social, but not both. By the same token, investigators were generally quick to acknowledge that the one area of concern might be significantly contaminated by difficulties in another area and that caution should be followed when the individual counselee is under scrutiny. Also, the studies reviewed were equally divided on their findings as to whether students with educational-vocational problems were representatives of the larger student bodies from which they came.

Summary

In this chapter a review of research pertinent to the purposes of the study was presented. It contained a listing and examination of research dealing with college students' pursuit of counseling services and (1) social background, (2) attitudes and values, (3) sex, (4) academic ability, and, (5) educational-vocational versus personal-social difficulties.

The review revealed that educators have shown an increasing concern with various characteristics which typify the consumer of counseling services. However, there was found to be a noticeable lack of agreement in the research as to how representative these characteristics actually were in the students

studied when compared with the total population at the college and university level. There were conflicting data supporting the theory that students who use the facilities of an organized counseling center were a random sample of students in general. Thus, the belief that there was a particular need for additional research into the characteristics of counselees was reaffirmed. The literature cited also lent some support for the rationale for the research hypotheses proposed in Chapter I as evidenced in the following gleanings.

Some clues were found in the research data which indicated that students from a higher social status were more receptive to the intensive therapy received in psychological and psychiatric clinics, while students who sought assistance from college counseling centers in making less severe adjustments of a vocational, educational, personal, or social nature were from lower social ranks, relatively speaking.

Personality dynamics were important items studied by investigators when describing counselees and non-counselees. Varied approaches were documented as appropriate for distinguishing between the two groups. In the critical area of attitudes and values the difficult problem was to unravel them from other personality constructs. The reader will note that there have been very few studies based on identifying basic value concepts and attitudes which in turn give direction

to behavior, defined in terms of appearance or non-appearance for counseling assistance. Apparently little research has been done in this area other than strictly verbalized attitudes. On the other hand, studies of self-concept, self-description, and other affective factors suggested that the counselee possessed poorer opinions of himself, was less defensive, less judgmental, less orderly, less able to follow a project through to its completion, more tolerant of ambiguity, more anxious, and more prone to accept help from someone else rather than reach a decision by himself.

Some of the data conclusively showed a relationship between the sex of the client and the results obtained as a consequence of the instrumentation involved. Generally speaking, the literature surveyed found more women frequented counseling centers and predominantly to discuss personal and social problems. Male students tended to want help along educational and vocational lines but were more apt to solve their own difficulties.

There has been much research on whether academic ability is an influential factor in counseling pursuit. The theory supporting the influence of academic ability has taken varied courses. One direction has supposed that self-determination engaged in problem-solving will be manifested to a greater extent

by the student with superior intellect. The counter direction has assumed that the academically-inferior student needed help with his decision-making. Another faction has suggested the brighter student would accept help for the purpose of supporting his decisions and plans. Finally, there were those who accepted the belief that people who sought help were similar on scales of academic ability to other students who did not seek help. Unfortunately, the evidence in the research failed to prove any one of the alternatives to the complete satisfaction of the present investigator.

The terminological distinction between personal-social counseled clients and educational-vocational counseled clients was largely supported by the review of studies reported in the preceding section. Although this distinction suggested merely the kind of problem rather than the source, nevertheless, there appeared to be enough essential difference to constitute reliable comparisons. One study even suggested that students in general tend to mentally visualize a counseling center as offering services for one or the other, but not necessarily both.

The next chapter will contain the research design and methodology used in the study. A discussion of instrumentation and approach procedures will be included.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

The nature of the study necessitated the making of comparisons on selected characteristics among students counseled for educational-vocational problems, students counseled for personal-social problems, and students who were never counseled at a university counseling center. The purpose of the present chapter is to describe the procedures and the data-gathering instruments used to make such comparisons.

Source of the Data

The population used for the purposes of the study was 3,216 freshmen who entered Michigan State University in the fall of 1958. The population was reduced to 2,746 (1,436 men and 1,310 women) by excluding the following: (1) all foreign students, (2) all part-time students carrying less than twelve credit hours, (3) all students who had previously attended any other college or university, and, (4) students whose test data were incomplete or unusable.

A comprehensive battery of tests was administered to this population at the time of their entrance into college including, among others, (1) a Michigan State University Biographical Data Sheet, (2) the Inventory of Beliefs, Form I, (3) the Differential

Values Inventory, and, (4) the College Qualification Test. The results from these instruments were subsequently keyed to IBM cards.

The nature of the research project necessitated the making of comparisons among groups of clients and non-clients on a number of selected characteristics. Consequently, non-client and client groups were obtained by reference to contact cards on file at the Michigan State University Counseling Center.

Selection and Definition of the Sample

From the restricted population defined in the preceding section, a sample of 316 students were used in the present analysis. The subjects were drawn from a roster of students who participated in a battery of examinations at the beginning of their freshman year in the fall of 1958 and who subsequently registered for their senior year of school. The total "normal" period of four years of college was used to prevent drawing false inferences regarding use of counseling services by students.

The sample was classified into three categories according to their use of counseling facilities: (1) educational-vocational-problem-counseled clients, (2) personal-social-problem-counseled clients, and (3) non-clients.

Clients were determined by reference to a contact card completed at the conclusion of each interview by one of the

trained personnel at the student counseling center. To qualify as a client the student had to meet four or more appointments at the counseling center and his sessions with a counselor or counselors had to be clearly identified as predominantly of an educational-vocational nature or a personal-social nature. In addition, at least two of the appointments had to be met within a two-week period. Every student who visited the center any time during his college experience from September 1958 to June 1962 and who met the definition of a client was included in the sample.

Non-clients were the 508 students whose names did not appear in the contact file as having ever requested help from the counseling center. The non-client group was formed by selecting every fourth member from the alphabetical roster of names of students who did not visit the counseling center at any time during their tenure as students.

Interview Classification

One interview with a counselor may be helpful in the solution to a problem or the attainment of sufficient strength to cope with the situation. But for the purposes intended here, the rather stringent requirement of four sessions was made to establish the fact that the student actually had a concern in the area endorsed by the counselor. At the same time, the exclusion of one-, two-, and three-time visitors restricted the

total number from which the sample of non-client subjects was drawn and in turn reduced the extent to which one is permitted to extrapolate to the university as a whole. In defense of these choices, it was deemed that the control of "contamination" would make for more realistic identification of counselees with different problems as well as to sharpen the distinction between counselees and people who show no inclination they need or want counsel.

Sample Characteristics

A final division of the subjects was made on the basis of sex. A tally of the frequency of the groups is shown in Table 3.1. The number of male students classified as non-clients was approximately double the number of female subjects which is disproportional to the sex distribution in the college population studied. This observation is congruent with previous findings that women are less reluctant to seek help with their problems.

TABLE 3.1

FREQUENCY CLASSIFICATION OF STUDENTS AS EDUCATIONAL-VOCATIONAL CLIENTS, PERSONAL-SOCIAL CLIENTS, AND NON-CLIENTS ACCORDING TO THEIR USE OF THE COUNSELING CENTER DURING THEIR NORMAL FOUR YEARS OF COLLEGE, 1958-1962

Sex	Educational-Vocational Clients	Personal-Social Clients	Non-Clients	Totals
Male	45	45	79	169
Female	<u>39</u> 84	<u>64</u> 109	<u>44</u> 123	<u>147</u> 316

Measuring Instruments

Instruments were selected to measure in four areas: (1) educational-occupational background, (2) stereotypy, (3) traditional-emergent values, and (4) academic aptitude. Each of these measuring devices is discussed in greater detail, with special attention given to the origin of the instrument, its technical effectiveness, the purpose of its development, and other distinguishing characteristics pertinent to its selection in the current project.

Educational-Occupational Index

Beginning in the fall term of 1958 the United States Department of Education sponsored a four-year project to study critical thinking, attitudes, and values in higher education under the leadership of the Michigan State University Evaluation Services.¹ A biographical data sheet which contained a twenty-five item survey was administered to all entering freshmen as a part of the study.

The data sheet was designed to seek information on the student's background as well as personal facts. It asked for such information as age, marital status, attendance at church, size of high school graduating class, relationship with parents

¹Irvin J. Lehmann, Stanley O. Ikenberry, and Paul L. Dressel, Critical Thinking, Attitudes, and Values in Higher Education (East Lansing, Michigan: Michigan State University, 1959).

and family, father's occupation, and parent's education. The purpose of the questionnaire was to secure demographic information. Estimates of reliability and validity naturally were not attempted. A copy of the data sheet is included in Appendix A.

Educational Level of Parents. The father's occupation and the level of education attained by the father and by the mother were used as indicators of the educational-occupational status of the family in the present study. The educational level of the father and the educational level of the mother was each quantified by assigning point values of one through eight. Educational level was classified according to the scale in Figure 3.1.

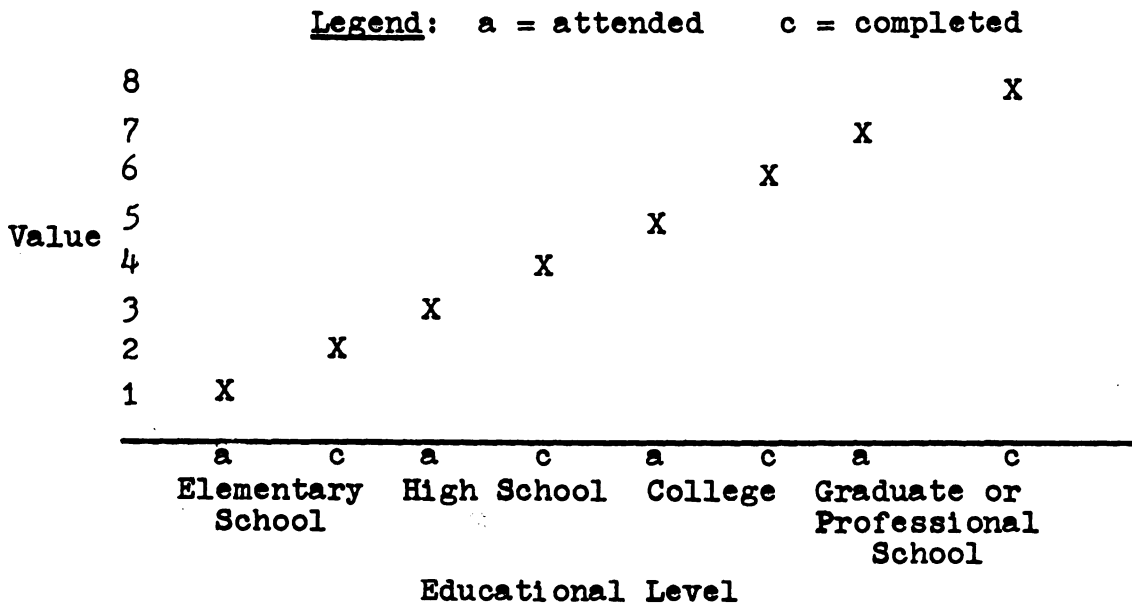


Fig. 3.1.--Levels of education attained by the parents of the students in the study and the corresponding value assigned to each level.

Occupational Level of Fathers. Data were collected about the father's occupation by asking students to "describe in a line or two . . ." what their father did for a living. The occupational descriptions were then classified according to the system developed by North-Hatt of Ohio State University in 1947 and further interpolated by A. O. Haller of Michigan State University with cross-referencing added by Farquhar.²

The prestige ratings of the occupations ranged from a low of 33 given to a "Shoe Shiner" to a high of 96 given to a "U.S. Supreme Court Justice." These scores were attached to the student's father's occupation. If the father's occupation was not given by the student, preferential order was given to (1) the mother's occupation, if any, and (2) the mean rating of all the occupations rated in the study. In nearly 95 per cent of the cases, the father's occupation was listed.

Development of the Educational-Occupational Index. The quantified data of the father's educational level, the mother's educational level, and the father's primary occupation were collapsed to form a single Educational-Occupational Index.

The intercorrelations among the three variables combined to form the Index are presented in Table 3.2.

²William W. Farquhar, Motivation Factors Related to Academic Achievement. A final report performed pursuant to a contract with the United States Department of Health, Education, and Welfare. (East Lansing, Michigan: Michigan State University, January, 1963), pp. 316-329.

TABLE 3.2

INTERCORRELATIONS OF BIOGRAPHICAL VARIABLES OF PARENTS
RELATED TO THE EDUCATIONAL-OCCUPATIONAL BACK-
GROUND OF STUDENTS

Biographical Variables	Mother's Educational Level	Father's Occupational Prestige Rating
Father's Occupational Prestige Rating	.390	
Father's Educational Level	.547	.514

The procedure for the construction of the Index was based on factor analysis using the property of the first factor considered to be the best discriminator for this technique.³ To accomplish the procedure, scores from each subject were used to compute coefficients by the Pearson product-moment correlation method. The results were then factor analyzed and a loading matrix obtained. Correlation coefficients between each of the biographical variables and the first factor were calculated. The correlation coefficients are presented in Table 3.3.

TABLE 3.3

CORRELATION COEFFICIENTS OF THE EDUCATIONAL-OCCUPATIONAL VARIABLES
OF PARENTS WITH THE FIRST FACTOR DERIVED FROM FACTOR ANALYSIS

Biographical Variables	Correlation Coefficients
Mothers' Educational Level	.702
Fathers' Occupational Prestige Rating	.666
Fathers' Educational Level	.756

³Margaret J. Hagood and Daniel O. Price, Statistics for Sociologists (New York: Henry Holt and Company, 1952), p. 56.

The means and standard deviations were calculated for the three biographical variables and are presented in Table 3.4.

TABLE 3.4

MEANS AND STANDARD DEVIATIONS OF MOTHERS' EDUCATION,
FATHERS' OCCUPATION, AND FATHERS' EDUCATION
FOR THE SAMPLE OF THE STUDY

Biographical Variable	Mean	Standard Deviation
Mothers' Educational Level	4.285	1.516
Fathers' Occupational Prestige Rating	70.516	8.915
Fathers' Educational Level	4.316	1.895

Raw scores were transformed into standard scores. Each of the standard scores was then multiplied by the correlation coefficient of the respective variable with the first factor.

The following index score was developed:

$$\text{Index Score} = .702 \left(\frac{X - \bar{X}}{\sigma} \right) + .666 \left(\frac{Y - \bar{Y}}{\sigma} \right) + .756 \left(\frac{Z - \bar{Z}}{\sigma} \right)$$

where: X, \bar{X}, σ = are the raw score, mean, and standard deviation, respectively, of mother's educational level

Y, \bar{Y}, σ = are the raw score, mean, and standard deviation, respectively, of father's occupational prestige rating

Z, \bar{Z}, σ = are the raw score, mean, and standard deviation, respectively, of father's educational level

With the known values in Table 3.4, it was possible to simplify the Index Score to the following formula.

$$\text{Educational-Occupational Index} = .463X + .075Y + .399Z - 8.995$$

where: X = raw score of mother's educational level
 Y = raw score of father's occupational prestige rating
 Z = raw score of father's educational level

The Educational-Occupational Index formula yields both plus and minus values with a mean of zero. For ease of computation, a constant of five was added to each Index score to make all numbers positive. Furthermore, the decimals were removed by multiplying each score by ten. Thus, the scores ran from a low of 3 to a high of 99 in the final range of the Educational-Occupational Index.

This first factor index was then calculated for all the members of the sample and was subsequently machine-punched on the respective IBM data cards as a single score to represent level of educational-occupational background.⁴

Inventory of Beliefs

The Inventory of Beliefs, Form I, was developed by the Intercollege Committee on Attitudes, Values, and Personal Adjustment of the Cooperative Study of Evaluation in General Education

⁴Much of the computational information in this section was extracted from Stanley O. Ikenberry, "A Multivariate Analysis of the Relationship of Academic Aptitude, Social Background, Attitudes and Values to Collegiate Persistence" (unpublished Ph.D. dissertation, Michigan State University, 1960), pp. 61-66.

of the American Council on Education.⁵ The committee explored the findings of studies on the "authoritarian syndrome" and the implications that these had for general education. Personalities most adaptable to general education were inferred. In order to identify these personalities one hundred twenty items of pseudo-rational generalizations, cliché-like statements, and statements of stereotyped beliefs were developed. The series of statements became the Inventory of Beliefs.

Students are asked to: strongly agree, agree, disagree, or strongly disagree to the statements presented. All of the statements are judged to be items with which mature students should disagree. Typical of these items are: "We would be better off if people would talk less and work more," "If you want a thing done right, you have to do it yourself," and, "The predictions of economists about the future of business are no better than guesses." The possible range of scores is from a low of 0 to a high of 120. High scorers are those who do not agree with the generalizations and clichés.

The underlying assumption is that the opinions measured by the Inventory are relatively stable concepts and are indicators of the individual's personality. It purports to indicate degree

⁵Paul L. Dressel and Lewis B. Mayhew, General Education: Explorations in Evaluation (Washington, D.C.: American Council on Education, 1954), pp. 208-241.

of rigidity by dividing students along an authoritarian -- non-authoritarian continuum. Those who score high on the scale (the non-rigid persons) are thought to be more independent, adaptable, flexible, democratic, and mature. Those who accept a relatively large number of stereotyped statements reveal traits of immaturity, compulsivity, and rigidity. They are characterized as consistently more defensive and resistant in relationships with others. In short, they are more stereotypic in their belief systems.⁶

The Inventory has proved to be a reliable and valid instrument for individual or group measurement.⁷ Reliability coefficients reported in the manual range from .68 to .95 with a median coefficient of .86. The manual also reported evidence of face validity and construct validity.⁸ Indications of concurrent validity are shown in another study wherein the Inventory of Beliefs appears to be closely related to Rokeach's Dogmatism Scale.⁹ Both attempt to measure attitudes of a similar nature:

⁶ Paul L. Dressel (ed.), Evaluation in the Basic College at Michigan State University (New York: Harper & Brothers, 1958), p. 163.

⁷ Paul L. Dressel and Lewis B. Mayhew, General Education: Explorations in Evaluation (Washington, D.C.: American Council on Education, 1954), p. 222.

⁸ Cooperative Study of Evaluation in General Education, Paul L. Dressel, Director, Instructor's Manual for the Inventory of Beliefs (The American Council on Education, Committee on Measurement and Evaluation, 1953). Mimeographed.

⁹ Irvin J. Lehmann, Stanley O. Ikenberry, and Paul L. Dressel, Critical Thinking, Attitudes, and Values in Higher Education (East Lansing, Michigan: Michigan State University, 1959), p. 37.

stereotypy in the case of the former instrument and dogmatism by the latter scale. Considerable support for the claim for validity of both measures might be based upon the fact that the two scales were constructed independently to measure related phenomena and are positively correlated one with the other.

Differential Values Inventory

The Differential Values Inventory was developed by Richard Prince while doing a doctoral study at the University of Chicago.¹⁰ The construction of his Differential Values Inventory was based upon the "traditional" and "emergent" value classifications initially specified by Spindler.¹¹ Getzels¹² conveniently placed these traditional-emergent values in definite categories as illustrated in Figure 3.2.

Traditional Values

Puritan morality
Individualism
Work-success ethic
Future-time orientation

Emergent Values

Relativistic moral attitudes
Conformity
Sociability
Present-time orientation

Fig. 3.2.--Descriptive traits of traditional and emergent values.

¹⁰Richard Prince, "A Study of the Relationship Between Individual Values and Administrative Effectiveness in the School Situation" (unpublished Ph.D. dissertation, University of Chicago, 1957).

¹¹George Spindler, "Education in a Transforming American Culture," Harvard Educational Review, Vol. 25 (Summer, 1955), pp. 145-46.

¹²Jacob W. Getzels, "Changing Values Challenge the Schools," School Review, Vol. 45 (Spring, 1957), pp. 92-102.

Thus, the Inventory was intended to discover whether an individual holds to the traditional or the more recent pattern of American emergent values. An individual is thought to have emergent values if he tends to regard more highly the values of morality determined by the group, personal actions governed by consideration of others, achievement harmony, and the satisfaction of present needs. A high score indicates a leaning toward traditional values such as guilt, thrift, and self denial, personal desires and beliefs above the group, necessity and desirability of hard work, and an orientation of sacrifice of present needs for a future reward.

An individual's value orientation is determined by his choices from sixty-four pairs of statements. Each pair of statements has an emergent-value item pitted against a traditional-value item. The respondent chooses what he ought to do or feel. Examples of typical statements are shown in Figure 3.3.

<u>Item</u>	<u>Alternative</u>	<u>Statement</u>
8	A	Rely on the advice of others in making decisions.
	B	Be independent of others in making decisions.
51	A	Feel that it will be good for me later if I endure unpleasant things now.
	B	Feel that whether or not I should be willing to endure unpleasant things now because it will be good for me later is a matter of opinion.

Fig. 3.3--Examples of paired statements from The Differential Values Inventory.

Each time the subject selects a traditional choice between the two alternatives he receives one point. Subjects who score above 32 are considered traditional in their value patterns and those who score below 32 are considered emergent. The scale yields a total traditional-value score as well as subscores for each of the four traditional values and for each of the four emergent values.

The technical support of the Differential Values Inventory can be summarized in the words of Ikenberry. "Although the evidence for validity and reliability of the Differential Values Inventory is not as extensive as some other measures used in this study, the inventory appears to have a sound theoretical base with more evidence of validity and reliability than most value instruments."¹³ Lehmann¹⁴ reported a test-retest reliability of .70 for the traditional-value score and an internal consistency reliability coefficient of .75 using the Kuder-Richardson formula.

College Qualification Test

The College Qualification Test actually consists of a series of three ability tests which may be collapsed into a single

¹³ Stanley O. Ikenberry, "A Multivariate Analysis of the Relationship of Academic Aptitude, Social Background, Attitudes and Values to Collegiate Persistence" (unpublished Ph.D. dissertation, Michigan State University, 1960), p. 60.

¹⁴ Irvin J. Lehmann, "Critical Thinking Ability, Attitudes, and Values Among College Students," Journal of Teacher Education, Vol. 13 (1962), p. 379.

total score. The three subtests include verbal ability, numerical ability, and general information.¹⁵ The Total Score consists of the sum of the scores on the verbal, numerical, and information tests. Because of the greater general predictive power of the Total Score it was used in preference to the three separate sub-scores.

The instrument was initially developed to serve as a basis for prediction of academic success in college courses. The verbal test consists of 75 vocabulary items which requires the identification of 50 synonyms and 25 antonyms. The numerical test consists of 50 items requiring application of arithmetical, algebraic, and geometrical concepts. It was designed to measure conceptual skill rather than computational or clerical speed. Test "I" of the College Qualification Test series has 75 items which measure the student's general information. These items cover a broad range of subject matter areas including scientific subjects such as the physical, biological, and chemical sciences and social science subjects such as history, economics, geography, and government. Each sub-test is timed although the limits seem to be generous enough to function as real power tests.

Estimates of the reliability of the College Qualification Test, total score, are given in the test manual and include

¹⁵George K. Bennett, et al., College Qualification Tests, Manual (New York: The Psychological Corporation, 1957), p. 3.

coefficients of .97 for males and .96 for females. These reliability coefficients were determined through the split half method, a comparison of differences between scores on the odd and the even items of the test. The validity coefficients are reasonably high with a mean of .55 based on the total score. The College Qualification Test correlates .78 with the American Council on Education (ACE) tests and .82 with the School and College Ability Tests (SCAT), both well-recognized scholastic aptitude tests.¹⁶

In general, the College Qualification Test is considered to be a valid and effective test for predicting academic aptitude and college success.¹⁷

Reliabilities using responses from the samples of the present study were not calculated because the data was recorded in total score form.

Statistical Hypotheses

The stated hypotheses in Chapter I were the generalized research form and constitute an attempt to predict the relationship of selected student characteristics to differential counseling pursuit. For statistical purposes as well as to account

¹⁶Ibid., p. 33.

¹⁷Oscar Krisen Buros (ed.), The Fifth Mental Measurements Yearbook (New Jersey: The Gryphon Press, 1959), pp. 445-449.

for the interrelatedness of factors testing will employ both a null and alternate hypotheses.

Null Hypothesis

The null hypothesis tests the assumption that all of the groups of students may be considered members of the larger universe from which they were drawn and that there are no differences among the groups in educational-occupational background, stereotypy, traditional-emergent values, sex, and academic aptitude. Statistical analyses are selected to help determine if the null hypothesis can be rejected. The null hypothesis for the present research is stated as:

There are no differences in educational-occupational background, stereotypy, traditional-emergent values, sex, and academic aptitude among groups of students classified by their use of college counseling services and the type of problem they bring to the counseling relationship.

Alternate Hypotheses

Extrapolation of the stated purposes and research rationale of the study, and liberal "hunching," lends itself to designating the direction of hypothesis expectancy. For clarification and for ease of manipulation a symbolical representation was developed. The major null hypothesis, the major alternate hypotheses, plus subsidiary hypotheses attributable to sex differences, are all accounted for in the summary of Table 3.5.

TABLE 3.5

SYMBOLICAL REPRESENTATIONS OF THE STATISTICAL
HYPOTHESES OF THE STUDY

<u>Characteristics</u>	<u>Hypotheses</u>
<p>Legend: NC = Non-Client EV = Educational-Vocational Client PS = Personal-Social Client m = male f = female</p>	
<p>Educational-Occupational Background (EOB) (Mother's education Father's education Father's occupation)</p>	<p>A.0 : $EOB_{NC} = EOB_{EV} = EOB_{PS}$ A.1 : $EOB_{NC} > EOB_{EV} = EOB_{PS}$ A.2 : $EOB_{NC_{mf}} = EOB_{EV_{mf}} = EOB_{PS_{mf}}$ A.3 : $EOB_{PS_f} > EOB_{PS_m}$</p>
<p>Attitudes (A) (Stereotypic beliefs)</p>	<p>B.0 : $A_{NC} = A_{EV} = A_{PS}$ B.1 : $A_{NC} > A_{EV} = A_{PS}$ B.2 : $A_{NC_{mf}} = A_{EV_{mf}} = A_{PS_{mf}}$ B.3 : $A_{EV_m} > A_{EV_f}$ B.4 : $A_{PS_m} > A_{PS_f}$</p>
<p>Values (V) (Traditional--rather than emergent)</p>	<p>C.0 : $V_{NC} = V_{EV} = V_{PS}$ C.1 : $V_{NC} > V_{EV} = V_{PS}$ C.2 : $V_{NC_{mf}} = V_{EV_{mf}} = V_{PS_{mf}}$ C.3 : $V_{EV_m} > V_{EV_f}$ C.4 : $V_{PS_m} > V_{PS_f}$</p>
<p>Sex (S) (Proportionality of women to men)</p>	<p>D.0 : $S_{NC} = S_{EV} = S_{PS}$ D.1 : $S_{EV_f} = S_{PS_f} > S_{NC_m}$</p>
<p>Academic Aptitude (AA) (College ability)</p>	<p>E.0 : $AA_{NC} = AA_{EV} = AA_{PS}$ E.1 : $AA_{NC} > AA_{PS} > AA_{EV}$ E.2 : $AA_{NC_{mf}} = AA_{EV_{mf}} = AA_{PS_{mf}}$ E.3 : $AA_{PS_f} > AA_{PS_m}$</p>

Statistical Analysis

The approach to gathering the data was established from the above descriptions of origin and selection of users and non-users. The numerical data from the tests these subjects took were initially arranged for treatment at the Michigan State University Data Processing Center by the Control Data Corporation 3600 computer system. Much of the data was calculated separately by hand machines as well.

The statistical technique appropriate to many problems in education and personnel work wherein several groups and several variables are considered is the multiple discriminant analysis. Technical difficulties encountered with programming precluded its use in the present investigation. Consequently, several measures were considered necessary to test the hypotheses of the study. The particular statistical models applied to the problem were the analysis of variance, Scheffe's technique, and t-tests with the continuous data, and the chi-square technique with discrete variables.

Analysis of Variance Technique

It was decided that the major portion of the data would be compared to test the hypothesis which demanded evidence of significant differences among groups. The technique for this comparison was the use of analysis of variance employing the

statistic F .¹⁸ The level of confidence at which a hypothesis could be rejected was set at the .05 level.

A simple analysis of variance was used followed by Scheffe's technique to determine exactly which groups were significantly different between means if the analysis of variance yielded a significant F . An obvious limitation of the one-way analysis of variance is the absence of data on possible interactions. Intercorrelations were calculated on responses to the instruments for the total sample of students in the study to prevent overgeneralizing from the results or misinterpreting variables that were related.

Assumptions of Analysis of Variance. Certain conditions must be met for any statistical test to be appropriate. The assumptions of analysis of variance imply that each treatment population is normally distributed, each population has the same variance of scores, the mean of the criterion measures are the same for each treatment population, and that errors associated with any pair of observations are independent.

The populations in the present study were assumed to meet these requirements. The total freshman class was largely used

¹⁸Allen L. Edwards, Experimental Design in Psychological Research (New York: Holt, Rinehart and Winston, 1960), pp. 117-135.

with sub-samples drawn according to their use or non-use of the counseling center. There was no evidence to suggest these groups were not normally distributed. Besides, Lindquist¹⁹ feels that the validity is affected little by violating this assumption. The Bartlett²⁰ test for homogeneity of variance with unequal degrees of freedom was made to insure that each treatment population did not significantly vary from another. No significant differences were found by Bartlett's test among the variances of the groups. The results are tabled in Appendix B. The null hypotheses stated in the study assumed the similarity of means for the three groups. Students in the non-client group were randomly selected and the two client groups included the total available population. Thus, the subjects within the groups were mutually independent. Intercorrelations were calculated among the instruments used in the study on the total sample of students to prevent misinterpretation of the variables that were related. Hence, a check on the error components was made.

Scheffe's Technique

A significant F test by the analysis of variance method indicates that at least one significant comparison exists among

¹⁹E.F. Lindquist, Design and Analysis of Experiments (Boston: Houghton Mifflin Co., 1953), p. 75.

²⁰Allen L. Edwards, Experimental Design in Psychological Research (New York: Holt, Rinehart and Winston, 1960), p. 127.

the means of the groups. This means that an additional approach is needed to search for the specific significant differences. Such a technique has been developed by Scheffe.²¹ According to Hays the method has the "advantages of simplicity, applicability to groups of unequal sizes, and suitability for any comparison. This method is also known to be relatively insensitive to departures from normality and homogeneity of variance."²²

Scheffe's test asserts that the means are significantly different if an established interval for each pair does not include zero.

$$(\bar{X}_i - \bar{X}_j) \pm \sqrt{(k-1) F_{\alpha}} \sqrt{WMS \left(\frac{1}{n_i} + \frac{1}{n_j} \right)}$$

where: \bar{X}_i and \bar{X}_j = are the means being compared

k = is the number of groups

F_{α} = is the value of the "F" distribution at the desired level of confidence

WMS = is the "within mean squares" obtained in the analysis of variance and is an estimate of the variance

n_i and n_j = are the respective number of observations of the groups being compared

Assumptions of Scheffe's Test. The assumptions for the analysis of variance are also appropriate for Scheffe's test.

²¹Henry Scheffe, "A Method for Judging all Contrasts in the Analysis of Variance," Biometrics, Vol.40 (June,1953), pp. 87-104.

²²William L. Hays, Statistics for Psychologists (New York: Holt, Rinehart and Winston, Inc., 1963), p. 484.

The conditions met and discussed previously for the analysis of variance apply here.

The Scheffe method is considered to be a very conservative test with respect to the Type I error.²³ Thus, it will frequently fail to yield significant results when it really should. For this reason, Scheffe suggests using a ten per cent level of confidence instead of the five per cent level of confidence used in the analysis of variance.²⁴

Chi-Square Technique

Whereas the analysis of variance technique was used to measure central tendency differences of the majority of the variables in the study, there was one component which was compared on proportionality. To consider the effect of the sex of the student in relation to pursuit of counseling, the two classifications--male and female--were evaluated to see if they deviated significantly from those expected on the basis of the known proportion of males to females in the population studied. The appropriate model selected for evaluating this kind of frequency distribution was the chi-square (χ^2) distribution.

Essentially, the chi-square distribution compares an observed frequency distribution against a corresponding theoretical or

²³B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw-Hill Book Company, Inc., 1962), p. 89.

²⁴Henry Scheffe, The Analysis of Variance (New York: John Wiley & Sons, Inc., 1959), p. 71.

expected frequency distribution. A probability is determined and the obtained value of the observed frequencies to the theoretical frequencies are based upon the null hypothesis between the two. Whenever the null hypothesis can be rejected, then one can conclude that the observed variable deviates significantly more than what would be expected by chance.

Assumptions of the Chi-Square Test. Initially it is assumed in the chi-square that the individual events or measures are independent of each other. This is an important principle which for the present study was considered to have been met. There is no reason to suspect that the response of any one of the subjects in the sample is dependent upon or correlated with the response of any other subject.

The chi-square technique was applied in the present study on the frequency distribution of men and women and their use of counseling services. Thus, the assumption was satisfied that chi-square should be used with frequency data. Random sampling or the use of total possible populations was followed and the assumptions in general, namely, a mean of 0 and a variance of 1, underlying the chi-square technique were met.

The level of confidence at which any hypothesis would be rejected was set at the .05 level.

Summary

A sample of 316 students was selected from among 1,436 men and 1,310 women who entered Michigan State University as new freshmen in the fall of 1958. The sample was then divided into three sub-samples according to their use of counseling services as defined for the purpose of the study as (1) educational-vocational-problem-counseled clients, (2) personal-social-problem-counseled clients, and, (3) non-clients. Pertinent data regarding the subjects were obtained from a larger study on student values and attitudes, and from the files of the Counseling Center.

The instruments used in the study were listed and described in some detail with reference to development, rationale, reliability, and validity. The instruments selected included the Inventory of Beliefs to measure stereotypy, the Differential Values Inventory to measure traditional-emergent values, and the College Qualification Test to measure academic aptitude. In addition, educational-occupational background was measured by means of an Educational-Occupational Index developed by combining the educational attainment of the parents and the prestige level of the father's primary occupation using a factor analysis formula based on the property of the first factor.

The following null and alternate hypotheses were formulated:

Major Null Hypothesis A,0: There are no differences in educational-occupational backgrounds of users and non-users of college counseling services.

Alternate Hypothesis A,1: Users of counseling services come from lower educational-occupational backgrounds than non-users.

Sub-Hypothesis A,2: There are no differences in educational-occupational-background between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis A,3: Personal-social-problem-counseled women come from a higher educational-occupational background than personal-social-problem-counseled men.

Major Null Hypothesis B,0: There are no differences in stereotypy among students who use and students who do not use the services of the counseling center.

Alternate Hypothesis B,1: Students who use the counseling center have less stereotypy than non-users.

Sub-Hypothesis B,2: There are no differences in stereotypy between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis B,3: Educational-vocational-problem-counseled men will possess more stereotypy than educational-vocational-problem-counseled women.

Alternate Hypothesis B,4: Personal-social-problem-counseled men will possess more stereotypy than personal-social-problem-counseled women.

Major Null Hypothesis C,0: There are no differences in traditional values among users and non-users of college counseling services.

Alternate Hypothesis C,1: Students who use college counseling services are less traditional in values than non-users.

Sub-Hypothesis C,2: There are no differences in traditional values between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis C,3: Educational-vocational-problem-counseled men have more traditional values than educational-vocational-problem-counseled women.

Alternate Hypothesis C,4: Personal-social-problem-counseled men have more traditional values than personal-social-problem-counseled women.

Major Null Hypothesis D.0: There is no difference in the proportion of men and women who pursue counseling at the counseling center.

Alternate Hypothesis D.1: A greater proportion of women pursue counseling at the counseling center than men.

Major Null Hypothesis E.0: There are no differences in academic aptitude of users and non-users of college counseling services.

Alternate Hypothesis E.1: Users of college counseling services have lower academic aptitude than non-users.

Sub-Hypothesis E.2: There are no differences in academic aptitude between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis E.3: Personal-social-problem-counseled women will possess greater academic aptitude than personal-social-problem-counseled men.

Information was given relative to the gathering and the processing of the data. The statistical treatment of the data by the analysis of variance technique was used to meet the technical objectives of the present project. Chi-square was used on that part of the data expressed in terms of proportion frequencies.

Whereas this chapter included a discussion of the methods and procedures used in the study, Chapter IV will contain the analyses and results of the data used in testing the research hypotheses.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The statistical analysis of the data was conducted according to the design as established in Chapter III. The purpose of the present chapter is to report the results and interpret the findings. The report will relate the data to the research hypotheses. As a matter of convenience the hypotheses will be restated in both the null and alternate forms prior to the presentation of the results.

Analysis of the Data

The interrelationships among the instruments used in the study for males and females combined were calculated to aid in the interpretation of the results. The absence of information on possible interactions by the use of simple analyses of variance prompted the need for a check against overgeneralization or misinterpretation of the findings. The intercorrelation matrix of the four variables is shown in Table 4.1.

TABLE 4.1

CORRELATION COEFFICIENTS AMONG THE FOUR VARIABLES USED IN THE STUDY: THE INVENTORY OF BELIEFS, THE DIFFERENTIAL VALUES INVENTORY, THE COLLEGE QUALIFICATION TEST AND THE EDUCATIONAL-OCCUPATIONAL BACKGROUND INDEX
(n = 316)

Variables	1	2	3	4
1. Inventory of Beliefs ^a				
2. Differential Values Inventory ^b	.05			
3. College Qualification Test	.38*	.08		
4. Educational-Occupational Index	.11	-.22*	.02	

*Significantly different from zero at the .01 level

It is evident from Table 4.1 that there is a significant but low correlation ($r = .38$) between the scholastic aptitude measure (College Qualification Test) and the measure of stereotypy (Inventory of Beliefs). The correlation might be misleading unless it is remembered that high scorers on the Inventory of Beliefs are those individuals who do not agree with the generalizations and stereotypic cliches. Also, a significant low negative relationship ($r = -.22$) exists between the educational-occupational background (Educational-Occupational Index) of individuals and high traditional values (Differential Values Inventory). All of the other correlations were not significant.

The Bartlett¹ test for homogeneity of variance for unequal observations was used to test the null hypothesis of equal variances among groups. No significant deviations were found for any of the groups in the study. Thus, it was assumed that the variances of the separate groups were all estimates of the same population variance, an important assumption to be met in any interpretation of the results of an analysis of variance. The results of Bartlett's test are reported in Appendix B.

In the following sections, the individual hypotheses are restated prior to reporting the results of the data. The means and analyses of variance are presented for each major and alternate hypothesis. The results are shown for the total subjects in each sample group as well as separately for men and women. Comparisons of mean scores obtained by Scheffe's test are reported in each instance where the respective analysis of variance indicates a significant F. Also, t-tests between the sexes are recorded to verify certain sub-hypotheses.

Educational-Occupational Background Data

For the combined sample of men and women the following hypothesis about educational-occupational background was tested:

¹Allen L. Edwards, Experimental Design in Psychological Research (New York: Holt, Rinehart and Winston, 1960), p. 127.

Major Null Hypothesis A.0: College students who come from high educational-occupational backgrounds will respond no differently than students who come from low educational-occupational backgrounds in their counseling pursuit.

Alternate Hypothesis A.1: College students who pursue counseling services at the counseling center will come from lower educational-occupational backgrounds than non-users.

The analysis of variance technique was used to determine whether the variability among groups was sufficiently large enough in comparison with the variability within groups to justify the inference that there were no differences among the three groups. There was not enough variation on the educational-occupational background index for the F-ratio to be significant. Thus, the null hypothesis is accepted. A summary is made in Table 4.2 of the mean averages and the analyses of variance of the educational-occupational environment indices for the three groups of students.

Because the null hypothesis was accepted, it follows that the alternate hypothesis is necessarily rejected.

When the sexes were treated separately the following hypothesis about educational-occupational background was tested:

TABLE 4.2

SUMMARY OF MEAN SCORES AND ANALYSES OF VARIANCE OF THE EDUCATIONAL-
OCCUPATIONAL BACKGROUNDS OF COLLEGE STUDENTS AND THEIR
PURSUIT OF COUNSELING

<u>Mean Scores</u>					
Sex	Educational- Vocational Clients	Personal- Social Clients	Non- Clients	Grand Mean	
Male	47.111 (N=45)	45.889 (N=45)	48.228 (N=79)	47.308 (N=169)	
Female	53.231 (N=39)	50.516 (N=64)	56.773 (N=44)	53.109 (N=147)	
Both	49.952 (N=84)	48.606 (N=109)	51.285 (N=123)	50.006 (N=316)	

Analyses of Variance

Sex	SS		df	MS		F
	Variation			Variation		
	Between Groups	Within Groups		Between Groups	Within Groups	
Male	159.212	44112.788	2	79.606	265.740	.300
Female	1021.624	45934.635	2	510.812	318.991	1.601
Both	415.100	93458.887	2	207.550	298.591	.695

Sub-Hypothesis A.2: There are no differences in educational-occupational background between men and women who are non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis A.3: Personal-social-problem-counseled women come from a higher educational-occupational background than personal-social-problem-counseled men.

Sub-hypothesis A.2 is accepted for the two groups of clients but is rejected for non-clients. The summary in Table 4.3 shows the t-analyses for men and women in all three groups based on the educational-occupational background index. It can be seen that the difference on this particular index between men and women who did not use the services of the counseling center is significant at the .01 level of confidence. That is, women students who did not use the services of the counseling center were significantly higher than their male counterparts in educational-occupational background.

Alternate hypothesis A.3 is rejected because the null hypothesis for differences between men and women counseled for personal-social problems was accepted.

TABLE 4.3

COMPARISONS BY t-TEST ON THE EDUCATIONAL-OCCUPATIONAL INDEX
 BETWEEN MALE AND FEMALE EDUCATIONAL-VOCATIONAL CLIENTS
 (EV), PERSONAL-SOCIAL CLIENTS (PS), AND NON-CLIENTS
 (NC) RESPECTIVELY

Clients	Male			Female			df	t
	N	\bar{X}	σ	N	\bar{X}	σ		
EV	45	47.111	16.771	39	53.231	18.315	82	1.588
PS	45	45.889	16.744	64	50.516	19.543	107	1.326
NC	79	48.228	15.771	44	56.773	14.568	121	3.027*

*Significant at .01 level

Stereotypy Data

For the combined sample of men and women the following hypothesis about stereotypy was tested:

Major Null Hypothesis B.0: Students identified as mature, adaptive, and democratic (less stereotypy) and students described as rigid, compulsive, and authoritarian in their relations with others (more stereotypy) will exhibit no differences in their use of the counseling center.

Alternate Hypothesis B.1: Students who use the services of the counseling center will have attitudes described as more mature, adaptive, and democratic (less stereotypy) than non-users who will have attitudes described as more rigid, compulsive, and authoritarian in relation with others (more stereotypy).

The null hypothesis is rejected. The analysis of variance for males and females combined for the three groups of students is statistically significant at the .01 level. The results are reported in brief in Table 4.4. Furthermore, the analysis of variance for the men alone indicated a significant difference

TABLE 4.4

SUMMARY OF MEAN SCORES AND ANALYSES OF VARIANCE OF THE STEREOTYPY OF COLLEGE STUDENTS AS MEASURED BY THE INVENTORY OF BELIEFS AND THEIR PURSUIT OF COUNSELING

<u>Mean Scores</u>				
Sex	Educational- Vocational Clients	Personal- Social Clients	Non- Clients	Grand Mean
Male	65.978 (N=45)	68.800 (N=45)	61.696 (N=79)	64.728 (N=169)
Female	65.026 (N=39)	69.609 (N=64)	66.455 (N=44)	67.449 (N=147)
Both	65.536 (N=84)	69.275 (N=109)	63.398 (N=123)	65.994 (N=316)

Analyses of Variance

Sex	SS Variation		df Variation	MS Variation		F Value	
	Between Groups	Within Groups		Between Groups	Within Groups		
Male	1542.593	37030.887	2	166	771.296	223.078	3.458*
Female	571.250	24003.118	2	144	285.625	166.688	1.714
Both	2019.872	61710.116	2	313	1009.936	197.157	5.122**

*Significant at the .05 level

**Significant at the .01 level

at the .05 level of confidence. However, the null hypothesis is not rejected for the three groups of female students.

The Scheffe test to determine which pair of the means among the groups of combined males and females was particularly significant was performed and the accompanying outcome is presented in Table 4.5. It is apparent from this test that the significant analysis of variance was due to differences between non-clients and personal-social-problem-counseled clients with the non-clients evidencing more stereotypy than the personal-social-problem-counseled clients.

TABLE 4.5

SCHEFFE'S TEST OF SIGNIFICANT DIFFERENCES AMONG MEANS ON THE
INVENTORY OF BELIEFS FOR EDUCATIONAL-VOCATIONAL CLIENTS,
PERSONAL-SOCIAL CLIENTS, AND NON-CLIENTS
(MEN AND WOMEN COMBINED)

Groups	Means	Scheffe's Interval	Significant Difference
Educational-Vocational Clients vs Personal-Social Clients	65.536 69.275	8.133 to -.655	
Educational-Vocational Clients vs Non-Clients	65.536 63.398	6.424 to -2.14	
Personal-Social Clients vs Non-Clients	69.275 63.198	9.828 to +1.926	*

When the Scheffe test was performed on the three groups of men students, the significant difference between means was similar to the difference found for the men and women combined. That is, the significant analysis of variance was the result of differences which existed between male non-clients and male students who received counseling for personal-social problems. Men who never sought counseling evidenced more stereotypy than the personal-social-problem-counseled clients. The results of the Scheffe test are shown in Table 4.6.

TABLE 4.6

SCHEFFE'S TEST OF SIGNIFICANT DIFFERENCES AMONG MEANS ON THE
INVENTORY OF BELIEFS FOR EDUCATIONAL-VOCATIONAL CLIENTS,
PERSONAL-SOCIAL CLIENTS, AND NON-CLIENTS
(MEN ONLY)

The difference is significant if the interval does not include zero. Significance is at the .10 level of confidence as recommended by Scheffe.			
Groups	Means	Scheffe's Interval	Significant Difference
Educational-Vocational Clients vs Personal-Social Clients	65.978 68.800	9.614 to -3.970	
Educational-Vocational Clients vs Non-Clients	65.978 61.696	10.339 to -1.775	
Personal-Social Clients vs Non-Clients	68.800 61.696	9.828 to +1.926	*

When the sexes were treated separately the following hypothesis about stereotypy was tested:

Sub-Hypothesis B.2: There are no differences in stereotypy between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis B.3: Educational-vocational-problem-counseled men will possess more stereotypy than educational-vocational-problem-counseled women.

Alternate Hypothesis B.4: Personal-social-problem-counseled men will possess more stereotypy than personal-social-problem-counseled women.

On the Inventory of Beliefs, sub-hypothesis A.2 is accepted for the two groups of clients but is rejected for non-clients. The summary in Table 4.7 shows the results of the t-test for men and women in all three groups. The male non-clients scored significantly lower (more stereotypy) than female non-clients. It was concluded that college men who stay away from the counseling center exhibit more stereotypic beliefs than college women who likewise do not use counseling services.

Both alternate hypotheses B.3 and B.4 are rejected because of the previous acceptance of the null hypothesis (B.2).

TABLE 4.7

COMPARISONS BY t-TEST ON THE INVENTORY OF BELIEFS BETWEEN MALE AND FEMALE EDUCATIONAL-VOCATIONAL CLIENTS (EV), PERSONAL-SOCIAL CLIENTS (PS), AND NON-CLIENTS (NC) RESPECTIVELY

Clients	Male			Female			df	t
	N	X	σ	N	X	σ		
EV	45	65.978	14.695	39	65.026	14.128	82	.302
PS	45	68.800	16.355	64	69.609	14.014	107	.269
NC	79	61.696	14.215	44	66.455	9.699	121	2.177*

*Significant at the .05 level

Traditional-Emergent Values Data

For the combined sample of men and women the following hypothesis about traditional versus emergent values was tested:

Major Null Hypothesis C.0: College students whose values are "outer-directed" as revealed by descriptions of sociability, conformity, relativism, and a present-time orientation (emergent values) can not be differentiated in their counseling pursuit from "inner-directed" students asserted to have values of Puritan morality, individualism, work-success ethic, and future-time orientation (traditional values).

Alternate Hypothesis C.1: Students who use the counseling center will have values more "outer-directed" as characterized by sociability, conformity, relativism, and a present-time orientation (emergent values) than non-users whose values will be more "inner-directed" as characterized by Puritan morality, individualism, work-success ethic, and a future-time orientation (traditional values).

The null hypothesis is accepted. It was concluded that there is no difference in the traditional or the emergent values among users and non-users of the counseling center. A summary of the simple analyses of variance is shown in Table 4.8.

When the sexes were treated separately the following hypothesis about traditional values was tested:

Sub-Hypothesis C.2: There are no differences in traditional values between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis C.3: Educational-vocational-problem-counseled men have more traditional values than educational-vocational-problem-counseled women.

TABLE 4.8

SUMMARY OF MEAN SCORES AND ANALYSES OF VARIANCE OF THE TRADITIONAL-EMERGENT VALUES OF COLLEGE STUDENTS AS MEASURED BY DIFFERENTIAL VALUES INVENTORY AND THEIR PURSUIT OF COUNSELING

<u>Mean Scores</u>				
Sex	Educational- Vocational Clients	Personal- Social Clients	Non- Clients	Grand Mean
Male	34.311 (N=45)	36.178 (N=45)	34.810 (N=79)	35.041 (N=169)
Female	33.692 (N=39)	34.906 (N=64)	32.727 (N=44)	33.932 (N=147)
Both	34.024 (N=84)	35.431 (N=109)	34.065 (N=123)	34.525 (N=316)

Analyses of Variance

Sex	SS		df	MS		F Value	
	Between Groups	Within Groups		Between Groups	Within Groups		
Male	86.336	7934.374	2	166	43.168	47.797	.903
Female	126.847	6922.472	2	144	63.424	48.073	1.319
Both	136.631	15030.166	2	313	68.316	48.020	1.423

Alternate Hypothesis C.4: Personal-social-problem-counseled men have more traditional values than personal-social-problem-counseled women.

The sub-hypothesis is accepted. Because of this acceptance, the alternate hypotheses are rejected. The results of the t-tests are reported in Table 4.9. These findings would seem to indicate that, other things being equal, the acceptance of either traditional or emergent values did not affect the student in his counseling pursuit.

TABLE 4.9

COMPARISONS BY t-TEST ON THE DIFFERENTIAL VALUES INVENTORY BETWEEN MALE AND FEMALE EDUCATIONAL-VOCATIONAL CLIENTS (EV), PERSONAL-SOCIAL CLIENTS (PS), AND NON-CLIENTS (NC) RESPECTIVELY

Clients	Male			Female			df	t
	N	\bar{X}	σ	N	\bar{X}	σ		
EV	45	34.311	6.918	39	33.692	6.441	82	.424
PS	45	36.178	6.753	64	34.906	6.902	107	.959
NC	79	34.810	7.000	44	32.727	7.384	121	.764

Sex Data

The following hypothesis about the proportion of men and women who use college counseling facilities was tested:

Major Null Hypothesis D.0: There is no difference in the proportion of male and female students who pursue counseling at the counseling center.

Alternate Hypothesis D.1: A greater proportion of female students will use the services at the counseling center than will male students.



Because these hypotheses call for classification, a chi-square for proportions was used. It can be seen from Table 4.10 that a significant difference did occur. It could be inferred, then, that men and women are unequally attracted to use the services of the counseling center with a larger

TABLE 4.10

PROPORTION OF MALE AND FEMALE COLLEGE STUDENTS WHO PURSUE COUNSELING AT THE COUNSELING CENTER

Students	Number			Proportion			Z
	Male	Female	Both	Male	Female	Both	
Clients	90	103	193	.5325	.7007	.6108	3.9051*
Non-Clients	<u>79</u>	<u>44</u>	<u>123</u>	<u>.4675</u>	<u>.2993</u>	<u>.3892</u>	
Both	169	147	316	1.0000	1.0000	1.0000	

*Significant at the .01 level

proportion of women considered clients. Thus, the null hypothesis is rejected and the attendant alternate hypothesis is accepted. In the total population on which the study was based the proportion of men and women was found to be .5229 and .4771 respectively. Thus, the women in the sample used for the study were significantly disproportionately higher in their representation in the pursuit of counseling.

Academic Aptitude Data

For the combined sample of men and women the following hypothesis about academic aptitude was tested:

Major Null Hypothesis E,0: There are no differences in the general academic aptitude of students identified as users and non-users of college counseling facilities.

Alternate Hypothesis E,1: Students identified as non-users of college counseling facilities possess higher general academic aptitude than personal-social-problem-counseled clients who in turn possess higher general academic aptitude than educational-vocational-problem-counseled clients.

The null hypothesis is rejected at the .05 level of confidence. The results of the analysis of variance may be found in Table 4.11.

Once again the Scheffe technique was applied to determine where the significant differences among means indicated by the analysis of variance might lie. The findings are shown in Table 4.12. As before, it was found that a significant difference existed between personal-social-problem-counseled clients and non-clients. However, the difference was found to point in the opposite direction from that predicted in the alternate hypothesis for these two groups of students. It may be assumed that as far as academic aptitude is concerned, the non-client possesses less than students who use counseling services for aid with personal-social concerns.

TABLE 4.11

SUMMARY OF MEAN SCORES AND ANALYSES OF VARIANCE OF THE ACADEMIC APTITUDE OF COLLEGE STUDENTS AS MEASURED BY THE COLLEGE QUALIFICATION TEST AND THEIR PURSUIT OF COUNSELING

<u>Mean Scores</u>				
Sex	Educational- Vocational Clients	Personal- Social Clients	Non- Clients	Grand Mean
Male	134.778 (N=45)	137.311 (N=45)	127.810 (N=79)	132.195 (N=169)
Female	125.179 (N=39)	131.875 (N=64)	121.227 (N=44)	126.912 (N=147)
Both	130.321 (N=84)	134.119 (N=109)	125.455 (N=123)	129.737 (N=316)

Analyses of Variance

Sex	SS		df	MS		F	Value
	Variation	Between Groups		Variation	Between Groups		
Male	2996.982	108341.574	2	166	1498.491	652.660	2.296
Female	3115.379	102242.471	2	144	1557.690	710.017	2.194
Both	4376.924	214514.275	2	313	2188.462	685.349	3.193*

*Significant at the .05 level

TABLE 4.12

SCHEFFE'S TEST OF SIGNIFICANT DIFFERENCES AMONG MEANS ON THE COLLEGE QUALIFICATION TEST FOR EDUCATIONAL-VOCATIONAL CLIENTS, PERSONAL-SOCIAL CLIENTS, AND NON-CLIENTS

The difference is significant if the interval does not include zero. Significance is at the .10 level of confidence as recommended by Scheffe.

Groups	Means	Scheffe's Interval	Significant Difference
Educational-Vocational Clients vs Personal-Social Clients	130.321 134.119	11.989 to -4.393	
Educational-Vocational Clients vs Non-Clients	130.321 125.455	12.859 to -3.127	
Personal-Social Clients vs Non-Clients	134.119 125.455	16.033 to +1.295	*

When the sexes were treated separately the following hypothesis about academic aptitude was tested:

Sub-Hypothesis E.2: There are no differences in academic aptitude between men and women non-clients, educational-vocational-problem-counseled clients, and personal-social-problem-counseled clients respectively.

Alternate Hypothesis E.3: Personal-social-problem-counseled women will possess greater academic aptitude than personal-social-problem-counseled men.

The sub-hypothesis (E.2) which expresses no differences between men and women with respect to academic aptitude and counseling pursuit is accepted. This acceptance is based on the data shown in Table 4.13.

TABLE 4.13

COMPARISONS BY t-TEST ON THE COLLEGE QUALIFICATION TEST BETWEEN MALE AND FEMALE EDUCATIONAL-VOCATIONAL CLIENTS (EV), PERSONAL-SOCIAL CLIENTS (PS), AND NON-CLIENTS (NC) RESPECTIVELY

Clients	Male			Female			df	t
	N	\bar{X}	σ	N	\bar{X}	σ		
EV	45	134.778	24.598	39	125.179	25.654	82	1.743
PS	45	137.311	30.222	64	131.875	27.935	107	.954
NC	79	127.810	23.075	44	121.227	25.550	121	1.417

Summary

The findings of the study failed to reject the null hypothesis which states that there are no differences between users and non-users of the counseling center and the educational-occupational background of students. However, a sub-hypothesis concerning direction of differences between sexes showed that female college students who do not use counseling services came from a significantly higher educational-occupational background than did their male counterparts.

There were significant differences found among the three groups in their beliefs toward stereotyped statements. When men and women were compared separately, similar results were noted for the men but not for the women. The interpretation of the variations were statistically compared by an analysis of variance

employing the statistic F . Since the null hypothesis was rejected, it was decided that an analysis of the means by the Scheffe test should be used to ascertain between which specific groups the significant differences occurred. The intervals produced by the Scheffe test revealed that students who did not use the counseling center scored significantly more towards stereotyped beliefs than personal-social-problem-counseled clients but not significantly more than educational-vocational-problem-counseled clients.

Comparisons by t -tests between men and women on the Inventory of Beliefs showed that male non-clients scored significantly lower (more stereotypy) than female non-clients.

The null hypothesis regarding no differences among the three groups of students in their relative standing on values along the traditional--emergent dimension could not be rejected.

When the personal-social-problem-counseled clients were singly compared with non-clients they were seen to be academically brighter, significant at the .05 level of confidence. This finding was in the contrary direction to that predicted.

The results of the analysis of the data for female visitors versus male visitors to the counseling center accepted the prediction that a greater proportion of women would appear than men. From inspection of Table 4.10 it can be seen that the women use the counseling services considerably more so than men.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FUTURE RESEARCH

The purpose of this chapter is threefold. First, a brief review of the problem, the experimental design and procedures, and the results will be made. Second, conclusions will be drawn based on the findings of the present study. Third, the implications and their attendant recommendations for future research will be presented.

Summary

It has been the primary purpose of this study to grant additional research evidence pertaining to college students and their pursuit of counseling services.

The Problem

The differential use of counseling services was investigated in order to identify some of those discriminating characteristics which accompany various types of college students who use and do not use the counseling facilities.

The study was intentionally planned to examine the differences, if any, between users and non-users of counseling services with regard to educational-occupational background, stereotypy, traditional-emergent values, sex, and academic

apptitude. In addition, those identified as users were classified as educational-vocational-problem-counseled clients or personal-social-problem-counseled clients, and were compared separately on a number of pertinent variables.

Five general research hypotheses were formulated as follows:

1. College students who pursue counseling services at the counseling center will come from lower educational-occupational backgrounds than will non-users.
2. Students who use the services of the counseling center will have attitudes described as more mature, adaptive, and democratic (less stereotypy) than non-users who will have attitudes described as more rigid, compulsive, and authoritarian in relations with others (more stereotypy).
3. Students who use the counseling center will have values more "outer-directed" as characterized by sociability, conformity, relativism, and a present-time orientation (emergent values) than non-users whose values will be more "inner-directed" as characterized by Puritan morality, individualism, work-success ethic, and a future-time orientation (traditional values).
4. A greater proportion of female students will pursue counseling at the counseling center than male students.
5. Students identified as users of college counseling facilities will possess lower general academic aptitude than non-users.

Major null hypotheses, alternate hypotheses, and subsidiary hypotheses to account for sex differences, were all represented symbolically for clarification and ease of statistical treatment.

Research Design

Three hundred sixteen subjects were selected from a population of 2,746 students who were entering freshmen at Michigan State University in the fall of 1958 and who participated in a comprehensive battery of examinations as part of a study of critical thinking, attitudes, and values in higher education. The sample was divided into three categories depending on their use of counseling services as operationally defined for the study as (1) educational-vocational-problem-counseled clients, (2) personal-social-problem-counseled clients, and, (3) non-clients. Pertinent data on the educational-occupational background, stereotypy, traditional-emergent values, sex, and academic aptitude of the subjects were obtained from the larger study on student values and attitudes, while other pertinent data on counseling pursuit were obtained from the counseling center. A summary of the sample subjects showed the following classifications: educational-vocational-problem-counseled clients (45 male, 39 female); personal-social-problem-counseled clients (45 male, 64 female); and non-clients (79 male, 44 female).

The study defined a client as a student who met four or more appointments at the Michigan State University Counseling Center of which two appointments had to be within a two-week period of time. The nature of his visit was determined to have been predominantly concerned with educational-vocational-

problem, counseling or personal-social-problem counseling, whichever the case may have been, as noted by an endorsement on the contact card by a counselor. Non-clients were selected from a roster of individuals who never made an appearance at the center at any time during their "normal" tenure of four years as a university student. "Randomness" of this latter group was achieved by choosing every fourth name from an alphabetical list.

The instruments used in the study were listed and described in some detail with reference to development, rationale, reliability, and validity. Educational-occupational background was measured by an Educational-Occupational Background Index developed by combining the educational attainment of the parents and the prestige level of the father's primary occupation using a factor analysis based on the property of the first factor. The Inventory of Beliefs was used to measure stereotypy, the Differential Values Inventory to measure traditional-emergent values, and the College Qualification Test to measure academic aptitude.

Certain limitations were imposed upon the data as a consequence of the particular design used. A rather large body of students were ignored in the study as a result of the definitions employed. Persons with academic difficulties, referrals based on administrative action, and occasional visitors, were

excluded. The rationale behind the exclusion was an attempt to clearly sharpen the distinction among clients with different types of problems and students who show no inclination whatsoever they need or want to receive counseling. Additional limitations were incumbent with the different criteria as well as the measuring instruments used to evaluate them. Their use was felt justified due to their recognition and support as significant factors and effective tools of assessment respectively.

The approach to gathering the data was established and accomplished according to the previous descriptions of origin and selection of users and non-users. The numerical data from the results of the measuring instruments obtained on the members of the sample were arranged for treatment at the Michigan State University Data Processing Center by means of the Control Data Corporation 3600 computer system. Much of the data was also calculated by hand computers.

Several measures were considered necessary to test the hypotheses of the study. The particular statistical models applied to the problem were the analysis of variance, Scheffe's technique, and t-tests with the continuous data, and the chi-square technique for proportionalities with the discrete variables.

Results

For the subjects and procedures used in the study, the statistical treatment of the data revealed the following results:

1. The correlation coefficients among the four variables studied showed a significant but low correlation of .38 between academic ability and lack of stereotypy. Also, a significant low negative correlation of $-.22$ was found between students with traditional values and the level of educational-occupational background from which they came.

2. The Bartlett test for homogeneity of variance for unequal observations indicated no significant variation among the sample groups on all variables tested within the study.

3. There were no significant differences among the three groups, in general, pertaining to their educational-occupational background. However, a t-test between male and female non-clients found the women to have a significantly higher educational-occupational background than the counterpart male group (significant at the .01 level).

4. The null hypothesis was rejected at the .01 level among the three groups in the area of stereotyped beliefs, as measured by the Inventory of Beliefs. Similar results were noted for the men at the .05 level of confidence but not for the women.

5. An analysis of the Scheffe method revealed that students who did not use the services of the counseling center scored significantly lower (greater stereotypy) than personal-social-problem-counseled clients. No significant differences were found among

any of the other groups on this particular scale.

6. Men students who were classified as non-clients were found to have lower scores (more stereotypy) on the Inventory of Beliefs than women non-clients.

7. The three groups were statistically comparable with respect to their mean scores on the Differential Values Inventory.

8. The data indicated that a greater proportion of women pursue counseling at a college counseling center than do men. The difference was significant at the .01 level of confidence.

9. There was significant variation found among the three combined male and female groups of students in academic aptitude, as measured by the College Qualification Test.

10. The Scheffe technique found a significant difference existed between the means of personal-social-problem-counseled clients and non-clients on the measure of academic aptitude (ability) for the combined male and female sample.

11. There was no significant variation found between men and women on the scale for measurement of academic aptitude.

Conclusions

On the basis of the experimental arrangement, methods and research design employed, and findings of the study, a number of conclusions are drawn. These inferences, naturally, are subject to the limitations of the study itself. The following conclusions seem apparent:

1. When the male and female samples were combined the educational-occupational background among the three groups was not significantly different. Although three separate groups were chosen for the study, it may be assumed that as far as the level of education and occupation of their parents is concerned, the members of the study actually composed but one student group. An exception to the above conclusion was noted between men and women who did not use the services of a college counseling center. College women in this group came from significantly higher educational-occupational backgrounds than did their male counterparts.

It is difficult to generalize from this finding because of limited information. It is likely that differences exist between the total sample of men and women who come to college with the males coming from a broader range of educational-occupational classes than the women. That is, parents from lower educational-occupational backgrounds may be able to visualize college as an economic advantage for boys while college for girls becomes more of an economic liability. On the other hand, the combination of sex and educational-occupational background may be an influence in a student's decision to use college counseling services.

2. As a group, students who did not use the counseling center were characterized as consistently more defensive, immature, and resistant in their relationships with others

(more stereotypic) when compared with personal-social-problem-counseled clients. Stereotyped belief systems may be assumed to increase the likelihood that an individual will not use college counseling services, particularly for aid with personal-social concerns.

It is interesting to note, however, that although educational-vocational-problem-counseled clients were statistically similar to both personal-social-problem-counseled clients and non-clients, they tended to occupy a status somewhere in between the two extremes. Perhaps with more refined measuring devices the true differences would be magnified further towards the direction predicted in the initial chapters of this study. However, one cannot ignore the possibility that the predictions were totally in error and all this study picked up were chance differences.

3. When compared separately, men non-clients were discovered to be more rigid (stereotypic beliefs) than men who visited the counseling center with personal-social problems. Also, non-client males were found to be more stereotypic than non-client females. This finding largely agrees with Lehmann's¹ finding that male freshmen entering college are significantly more stereotypic in their beliefs than entering female students.

¹Irvin J. Lehmann, Stanley O. Ikenberry, and Paul L. Dressel, Critical Thinking, Attitudes, and Values in Higher Education (East Lansing: Michigan State University, 1959), p. 23.

It is assumed that males are either more apt to be more stereotypic in their beliefs than females, or else the combination of high stereotypy and low general academic aptitude operate jointly as a determinant in a student's pursuit of counseling.

4. Although there appeared to be a correlation between educational-occupational background and an individual's emergent values of relativistic morality, conformity, sociability, and satisfaction of present needs, there were no differences among the three groups of students. It was predicted that the non-clients would have more traditional values while the client groups would adhere to more emergent values. The data of the study indicate this is not the case. Thus, it is highly probable that the members of each group have nearly an equal amount of traditional and emergent values.

5. The pursuit of college counseling services seemed to be unequally engaged in by men and women. This finding partially supports the assumption that women are more amenable to counseling and are more willing to engage in interpersonal relationships in solving their problems.

6. The study did not support the theoretically formed hypothesis that an inverse relationship existed between academic aptitude and pursuit of counseling. In fact, when compared to the personal-social-problem-counseled client the non-client does not appear to be as academically able. It may be that a change is occurring in the culture as the value of counseling

services comes to be accepted so that the brighter student recognizes more quickly when he has personal concerns and understands the advisability, or at least is willing, to receive the aid of a professional helper. Regardless of whether students use the counseling center for help with personal-social problems or educational-vocational problems, they tend to be alike in academic aptitude.

Because a relationship exists between academic aptitude and non-stereotypy, two conclusions may be drawn: (1) an ability difference, in fact, does exist, or (2) the difference is largely the result of relatively stable stereotyped concepts attached to one's personality rather than ability alone. Nonetheless, the association of rigidity and low ability in the non-client, regardless of how attached, suggests that the assumption be made that administrative and personnel workers might face a difficult task in encouraging this segment of the student body to interact in a counseling relationship.

Implications and Recommendations for Future Research

In the course of the study a number of pertinent questions were raised which were beyond the scope of the research design. Some of the more important aspects suggested for future investigation are listed below:

1. The results of this investigation should be verified or refuted by additional studies before valid conclusions can be drawn about characteristic differences between users and non-

users of college counseling programs. This end might be accomplished by applying the techniques used here to a large representative sample of all American colleges and universities. The results of these comparative studies might give some indication of the unique drawing appeal of the counseling center at Michigan State University in comparison to other institutions.

2. Further research is needed to provide information about the relationship of particular characteristics to counseling pursuit. It would be interesting to know, for example, what the personal and social differences are between individuals who seek assistance and those who are unwilling to seek help when it is known that they both are experiencing problems or moments of stress.

3. The results of the study were restricted by the limitations of the testing instruments which were used. Although no differences were found among the groups on the measure of values, a more thorough and definitive study of this factor is suggested. One of the greatest difficulties of evaluation is the lack of suitable criteria of values.

4. No distinction was made in this investigation between pursuit of counseling by students in one academic area and pursuit of counseling by students in another. Students may tend to visit the counseling center in relation to the curriculum they selected. Students who indicate "non-preference", for example,

could conceivably pursue counseling differently than students in a determined curriculum. This factor deserves consideration in future studies.

5. The relative use of counseling services by college students could profitably be surveyed to determine the following:

- a. The extent of use----(How many times they use the services.)
- b. The types of use----(The number who are referred, the number for test interpretation, the number for academic reasons, the number for administrative reasons, the number for educational-vocational purposes, and the number for personal-social-problem counseling.)
- c. The type of student----(The class, curriculum, age and previous counseling experience of each student who visits the counseling center.)

6. Further research on this problem should be designed to clarify the relative importance of visitations by students to outside agencies, clinics, or private practitioners. A clearer understanding of those taking needs elsewhere would aid in the development of more effective programs. Also, greater support and cooperation of all counseling enterprises could be achieved.

7. Individual treatment of those areas revealed to be significantly different among the groups may serve to assist

administrative and personnel workers in the future. Such findings as might be obtained could be used to create measures and programs designed to help develop a positive image by the students of counseling services and personnel.

8. This study does not purport to be all inclusive on variables related to counseling pursuit. The complexity of the area suggests that other variables pertinent to use and non-use of counseling services exist. It is certainly conceivable that students' perceptions of counseling, for instance, are motivating determinants in pursuing counseling.

Caution should be exercised in generalizing on the basis of a particular investigation. It is recommended that additional research be conducted to consider the control of the numerous factors suggested above in order to substantiate this study prior to making serious judgments relative to these findings.

Information about the raw data on this study is available through the Department of Institutional Research at Michigan State University.

APPENDIX A

MICHIGAN STATE UNIVERSITY

BIOGRAPHICAL DATA SHEET

APPENDIX A

MICHIGAN STATE UNIVERSITY

Biographical Data Sheet

During this year, a study will be made of college freshmen. In order that the research staff (can) learn more about the nature of the student population, we would appreciate receiving certain information from you. It will be appreciated if you will be as accurate as possible in providing this information. While it is necessary to ask your name, your replies will be held in strict confidence and will be read only by the research staff.

Before beginning work, please fill in your NAME, AGE, STUDENT NUMBER, SEX, AND MAJOR (or "No Preference") in the blank after CLASS on the IBM sheets provided. Make no marks on this sheet. Blacken the appropriate spaces on the answer sheets. For example, if you are female you would blacken the space under 2 for Question 1.

1. Sex: 1. Male 2. Female
2. Age at last birthday: 1. Under 18 2. 18 3. 19 4. 20 or over
3. Marital status: 1. Single 2. Married 3. Divorced 4. Widowed
4. How often do you attend the church of your faith?
 1. Regularly 2. Frequently 3. Barely 4. Never
5. Nativity of parents:
 1. Mother native-born and father foreign-born
 2. Father native-born and mother foreign-born
 3. Both foreign-born
 4. Both native-born
6. As you see your situation at the present time, how much education would you like to have?
 1. A year of college
 2. Two years of college
 3. Three years of college
 4. Four years of college (Bachelor's Degree)
 5. Graduate or professional school

APPENDIX A--continued

8. Before coming to college, in what kind of a community did you live most of your life?
1. Farm
 2. Village, 250-2500 population
 3. Town, 2500-25,000 population
 4. City, 25,000-100,000 population
 5. City, over 100,000 population
9. Type of secondary school attended (for most of your high school years):
1. Public
 2. Parochial
 3. Private
10. Size of high school graduating class:
- | | | |
|-------------|------------|--------------|
| 1. Under 25 | 3. 100-199 | 5. 400-999 |
| 2. 25-99 | 4. 200-399 | 6. Over 1000 |
11. In which third of your high school graduation class did you stand with respect to grades?
1. Lower third
 2. Middle third
 3. Upper third
12. How actively did you participate in high school activities?
1. Very active
 2. Moderately active
 3. Not active
13. About how far did your father go in school? Blacken only one of the following spaces:
1. If attended grade school (grades 1 to 8) but did not finish
 2. If completed grade school through grade 8
 3. If attended high school (grades 9 to 12) but did not graduate
 4. If graduated from high school
 5. If attended college but did not graduate
 6. If graduated from college
 7. If attended graduate school or professional school but did not attain a graduate or professional degree
 8. If attained a graduate or professional degree
14. About how far did your mother go in school? (Follow same directions as for Question 13.)
15. If I have a problem, I prefer to discuss it with (check only one):
- | | | |
|-------------|------------|--------------------|
| 1. Parents | 3. Doctor | 5. Friend |
| 2. Minister | 4. Teacher | 6. Husband or wife |

APPENDIX A--continued

16. I consider my overall relationship with my parents and family to be:
 1. Excellent 2. Good 3. Average 4. Fair 5. Poor
17. What is your principal source of support while at Michigan State University?
 1. Parents 3. Athletic scholarship 5. G.I. Bill
 2. Job 4. Loans 6. Academic scholarship
18. Where do you live now while at Michigan State University?
 1. Dormitory 4. Fraternity or sorority house
 2. Off-campus apartment 5. With your family
 3. Off-campus rooming house
19. Do you now have, or plan to get, a job during the academic year?
 1. Yes 2. No
20. Which of the following describe your general makeup (check one or more):
 1. Friendly 6. Cheerful 11. Sociable
 2. Happy 7. Optimistic 12. Egotistic
 3. Pessimistic 8. Depressed 13. Patient
 4. Self-centered 9. Cooperative 14. Docile
 5. Anxious 10. Stubborn 15. Industrious
21. Which of the following explains your reasons for coming to college? (Check one or more.)
 1. To get a broad education
 2. To prepare for a vocation
 3. For the prestige of a college education
 4. To be with old friends
 5. To help get a job
 6. To please parents and/or friends
 7. It was "the thing to do"
 8. Foregone conclusion. I never questioned why
 9. Will enable me to make more money
 10. For the social enjoyment of "college life"
 11. It is a family tradition
 12. None of these
22. Religious preference:
 1. Catholic
 2. Jewish
 3. Protestant (write in denomination in the space provided for Question 26 on answer sheet)
 4. None
 5. Other (write in denomination in the space provided for Question 27 on answer sheet)

APPENDIX A--continued

23. What does your father do for a living? (Describe in a line or two in the space provided for Questions 29 and 30 on answer sheet.)
24. What does your mother do for a living? (Describe in a line or two in the space provided for Questions 31 and 32 on answer sheet. If not working write housewife.)
25. Does either parent have a secondary or part-time job? (Describe in the space provided for Questions 33 and 34 on answer sheet.)

APPENDIX B

BARTLETT'S TEST FOR HOMOGENEITY OF VARIANCE FOR UNEQUAL OBSERVATIONS ON THE SUB-SAMPLES USED IN THE STUDY

WHERE COMPUTATIONS ARE:

$$1. \frac{\sum \sum x_k^2}{\sum df}$$

$$2. \sum df \left(\log \frac{\sum \sum x_k^2}{\sum df} \right)$$

$$3. \text{Diff.} = \sum df \left(\log \frac{\sum \sum x_k^2}{\sum df} \right) - \sum df \left(\log S_k^2 \right)$$

$$4. \chi^2 = (2.3026) (\text{Diff.})$$

$$5. \text{Correction} = 1 + \left[\frac{1}{(3)(k-1)} \right] \left[\frac{1}{\sum df} - \frac{1}{\sum df} \right]$$

$$6. \text{Corrected } \chi^2 = \chi^2 / \text{Correction}$$

APPENDIX B

BARTLETT'S TEST FOR HOMOGENEITY OF VARIANCE FOR UNEQUAL OBSERVATIONS ON THE SUB-SAMPLES USED IN THE STUDY

Educational-Occupational Background (Men and Women)							
Category	$\frac{1}{df}$	\bar{x}_k^2	S_k^2	$\log S_k^2$	$(df)(\log S_k^2)$	χ^2	
Educational-Vocational Clients	83	.01204	25906.209	312.123	2.4943	207.0269	1.2848
Personal-Social Clients	108	.00925	36963.000	342.250	2.5343	276.7044	
Non-Clients	<u>122</u>	<u>.00819</u>	<u>30587.352</u>	<u>250.716</u>	<u>2.3991</u>	<u>292.6902</u>	
	313	.02948	93456.561			773.4125	

Educational-Occupational Background (Men)							
Category	$\frac{1}{df}$	\bar{x}_k^2	S_k^2	$\log S_k^2$	$(df)(\log S_k^2)$	χ^2	
Educational-Vocational Clients	44	.02272	12375.704	281.266	2.4492	107.7648	.1012
Personal-Social Clients	44	.02272	12335.928	280.362	2.4478	107.7032	
Non-Clients	<u>78</u>	<u>.01282</u>	<u>19400.472</u>	<u>248.724</u>	<u>2.3957</u>	<u>186.8646</u>	
	166	.05826	44112.104			402.3326	

APPENDIX B--continued

Educational-Occupational Background
(Women)

<u>Category</u>	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>χ_k^2</u>	<u>S_k^2</u>	<u>$\log S_k^2$</u>	<u>$(df)(\log S_k^2)$</u>	<u>χ^2</u>
Educational- Vocational Clients	38	.02631	12746.682	335.439	2.5255	95.9690	
Personal- Social Clients	63	.01587	24061.527	381.929	2.5819	162.6597	
Non-Clients	<u>43</u>	<u>.02325</u>	<u>9125.761</u>	<u>212.227</u>	<u>2.3267</u>	<u>100.0481</u>	
	144	.06543	45933.970			358.6768	1.8704

Stereotypy
(Men and Women)

<u>Category</u>	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>χ_k^2</u>	<u>S_k^2</u>	<u>$\log S_k^2$</u>	<u>$(df)(\log S_k^2)$</u>	<u>χ^2</u>
Educational- Vocational Clients	83	.01204	17105.885	206.095	2.3141	192.0703	
Personal- Social Clients	108	.00925	24160.896	223.712	2.3497	253.7676	
Non-Clients	<u>122</u>	<u>.00819</u>	<u>20443.906</u>	<u>167.573</u>	<u>2.2253</u>	<u>271.4866</u>	
	313	.02948	61710.687			717.3245	.9792

APPENDIX B--continued

<u>Category</u>	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>Stereotypy (Men)</u> x_k^2	s_k^2	<u>$\log s_k^2$</u>	<u>$(df)(\log s_k^2)$</u>	<u>x^2</u>
Educational- Vocational Clients	44	.02272	9501.492	215.943	2.3342	101.7048	
Personal- Social Clients	44	.02272	11769.384	267.486	2.4273	106.8012	
Non-Clients	<u>78</u>	<u>.01282</u>	<u>15761.148</u>	<u>202.066</u>	<u>2.3056</u>	<u>179.8368</u>	
	166	.05826	37032.024			389.3428	.5082

<u>Category</u>	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>Stereotypy (Women)</u> x_k^2	s_k^2	<u>$\log s_k^2$</u>	<u>$(df)(\log s_k^2)$</u>	<u>x^2</u>
Educational- Vocational Clients	38	.02631	7584.800	199.600	2.3002	87.4076	
Personal- Social Clients	63	.01587	12372.696	196.392	2.2932	144.4716	
Non-Clients	<u>43</u>	<u>.02325</u>	<u>4045.053</u>	<u>94.071</u>	<u>1.9734</u>	<u>84.8562</u>	
	144	.06543	24002.549			316.7354	3.5926

APPENDIX B--continued

<u>Category</u>	<u>Traditional-Emergent Values</u> <u>(Men and Women)</u>						
	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>x_k^2</u>	<u>s_k^2</u>	<u>$\log s_k^2$</u>	<u>$(df)(\log s_k^2)$</u>	<u>χ^2</u>
Educational- Vocational Clients	83	.01204	3690.346	44.462	1.6480	136.7840	
Personal- Social Clients	108	.00925	5051.376	46.772	1.6700	180.3600	
Non-Clients	<u>122</u>	<u>.00819</u>	<u>6289.344</u>	<u>51.552</u>	<u>1.7122</u>	<u>208.8884</u>	
	313	.02948	15031.066		526.0324		.2458

<u>Category</u>	<u>Traditional-Emergent Values</u> <u>(Men)</u>						
	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>x_k^2</u>	<u>s_k^2</u>	<u>$\log s_k^2$</u>	<u>$(df)(\log s_k^2)$</u>	<u>χ^2</u>
Educational- Vocational Clients	44	.02272	2105.796	47.859	1.6799	73.9156	
Personal- Social Clients	44	.02272	2006.532	45.603	1.6590	72.9960	
Non-Clients	<u>78</u>	<u>.01282</u>	<u>3822.000</u>	<u>49.000</u>	<u>1.6902</u>	<u>131.8356</u>	
	166	.05826	7934.328		278.7472		.0332

APPENDIX B--continued

<u>Traditional-Emergent Values</u> (Women)							
<u>Category</u>	<u>df</u>	$\frac{1}{df}$	x_k^2	s_k^2	$\log s_k^2$	$(df)(\log s_k^2)$	x^2
Educational- Vocational Clients	38	.02631	1576.468	41.486	1.6179	61.4802	.3112
Personal- Social Clients	63	.01587	3001.194	47.638	1.6780	105.7140	
Non-Clients	<u>43</u> 144	<u>.02325</u> .06543	<u>2344.489</u> 6922.151	54.523	1.7366	<u>74.6738</u> 241.8680	

<u>Academic Aptitude</u> (Men and Women.)							
<u>Category</u>	<u>df</u>	$\frac{1}{df}$	x_k^2	s_k^2	$\log s_k^2$	$(df)(\log s_k^2)$	x^2
Educational- Vocational Clients	83	.01204	53556.746	645.262	2.8098	233.2134	1.7177
Personal- Social Clients	108	.00925	90133.992	834.574	2.9215	315.5220	
Non-Clients	<u>122</u> 313	<u>.00819</u> .02948	<u>70823.562</u> 214514.300	580.521	2.7638	<u>337.1836</u> 885.9190	

APPENDIX B--continued

Academic Aptitude
(Men)

<u>Category</u>	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>x_k^2</u>	<u>s_k^2</u>	<u>$\log s_k^2$</u>	<u>$(df)(\log s_k^2)$</u>	<u>χ^2</u>
Educational- Vocational Clients	44	.02272	26622.728	605.062	2.7819	122.4036	1.9144
Personal- Social Clients	44	.02272	40188.236	913.369	2.9607	130.2708	
Non-Clients	<u>78</u>	<u>.01282</u>	<u>41531.568</u>	<u>532.456</u>	<u>2.7263</u>	<u>212.6514</u>	
	166	.05826	108342.532			465.3258	

Academic Aptitude
(Women)

<u>Category</u>	<u>df</u>	<u>$\frac{1}{df}$</u>	<u>x_k^2</u>	<u>s_k^2</u>	<u>$\log s_k^2$</u>	<u>$(df)(\log s_k^2)$</u>	<u>χ^2</u>
Educational- Vocational Clients	38	.02631	25008.864	658.128	2.8183	107.0954	.2448
Personal- Social Clients	63	.01587	49162.932	780.364	2.8923	182.2149	
Non-Clients	<u>43</u>	<u>.02325</u>	<u>28070.486</u>	<u>652.802</u>	<u>2.8147</u>	<u>121.0321</u>	
	144	.06543	102242.282			410.3424	

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