

Correlates of Volunteer Performance in a
Suicide Prevention/Crisis Intervention Service

By

EDWARD LESLIE ANSEL

A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA
1972

To Susan and Laurel

ACKNOWLEDGEMENTS

I wish to thank Dr. Richard McGee, chairman of my doctoral committee, for his advice and encouragement in this work. I also wish to express appreciation to Dr. Warren Rice, Dr. Vernon Van De Riet, Dr. Robert Ziller, and Dr. Betty Siegel, who also served on the committee. In addition, I owe a very special debt of gratitude to the members of the Research Team of the Center for Crisis Intervention Research for their assistance in the collection and analysis of the data. Among them, I would particularly like to thank Mr. Jack Schaff, Mr. Rod Goke, Miss Jean Feingold, and Miss Emily Mayne.

Finally, I wish to thank my wife, Susan, who typed the manuscript and assisted in much of the necessary clerical work.

TABLE OF CONTENTS

| | Page |
|---|------|
| ACKNOWLEDGEMENTS | iii |
| LIST OF TABLES | v |
| LIST OF ABBREVIATIONS | vi |
| ABSTRACT | viii |
| CHAPTER | |
| I. INTRODUCTION | 1 |
| Background | 2 |
| Rationale of This Approach | 12 |
| Specific Aims | 14 |
| II. METHODS AND PROCEDURES | 16 |
| Subjects | 16 |
| Predictor Variables | 18 |
| Criterion Variables | 20 |
| Procedures for Statistical Analysis | 28 |
| III. RESULTS | 33 |
| IV. DISCUSSION | 50 |
| APPENDIX | 56 |
| REFERENCES | 63 |
| BIOGRAPHICAL SKETCH | 65 |

LIST OF TABLES

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 1: Subscales of the California Psychological Inventory | 21 |
| 2: Listing of Multiple Discriminant and Multiple Regression Runs, with Number of Subjects in Each | 31 |
| 3: IR-RI, Summary Table | 36 |
| 4: IR-RII, Summary Table | 37 |
| 5: IR-RIII, Summary Table | 38 |
| 6: TE-RI, Summary Table | 40 |
| 7: TE-RII, Summary Table | 41 |
| 8: TE-RIII, Summary Table | 42 |
| 9: Gen-RI, Summary Table | 44 |
| 10: Gen-RII, Summary Table | 45 |
| 11: Gen-RIII, Summary Table | 46 |
| 12: Correlations Between Criterion Variables | 48 |

LIST OF ABBREVIATIONS

A. Predictor Variables -- Personal History and Demographic

1. Age: Age of volunteer, in years.
2. Sex: Sex of volunteer.
3. Single: Single marital status vs. any other marital status.
4. Married: Married marital status vs. any other marital status.
5. Children: Any children vs. no children.
6. Yrs. of School: Educational level of volunteer, in years of school attendance.
7. Student: Student occupational category vs. any other occupational category.
8. Homemaker: Homemaker occupational category vs. any other occupational category.
9. Religion: Any religious affiliation vs. no religious affiliation.
10. Psychotherapy: Volunteer previously in psychotherapy vs. no previous psychotherapy.
11. Suicidal Fr. or Rel.: Suicidal close friend or relative in volunteer's life vs. none.

B. Predictor Variables -- Personality (Subscales of the California Psychological Inventory).

12. Do: Dominance.
13. Cs: Capacity for Status.
14. Sy: Sociability.
15. Sp: Social Presence.
16. Sa: Self-acceptance.
17. Wb: Sense of Well-being.
18. Re: Responsibility.
19. So: Socialization.
20. Sc: Self-control.
21. To: Tolerance.
22. Gi: Good Impression.
23. Cm: Communality.
24. Ac: Achievement via Conformance.
25. Ai: Achievement via Independence.
26. Ie: Intellectual efficiency.
27. Py: Psychological-mindedness.
28. Fx: Flexibility.
29. Fe: Femininity.

LIST OF ABBREVIATIONS (continued)

C. Criterion Variables -- Volunteer Participation

30. LS: Length of Service, after training, dichotomized at 100 days.
31. IR: Involvement Ratio, or the number of shifts taken divided by the length of service, in days, and multiplied by 10,000.

D. Criterion Variables -- Volunteer Telephone Performance

32. TE: Technical effectiveness in telephone crisis work, as determined by scores on the Technical Effectiveness Scale.
33. Gen: Genuineness, or Gen: Facilitative genuineness, as determined by scores on Lister's Scale for the Measurement of Facilitative Genuineness.

E. Analyses

34. LS-DI: Multiple discriminant analysis of Length of Service, initial validation run with cross validation classification of holdout sample.
35. LS-DII: Multiple discriminant analysis of Length of Service, all subjects combined.
36. IR-RI: Multiple regression analysis of Involvement Ratio, initial validation.
37. IR-RII: Multiple regression analysis of Involvement Ratio, cross validation.
38. IR-RIII: Multiple regression analysis of Involvement Ratio, all subjects combined.
39. TE-RI: Multiple regression analysis of Technical Effectiveness, initial validation.
40. TE-RII: Multiple regression analysis of Technical Effectiveness, cross validation.
41. TE-RIII: Multiple regression analysis of Technical Effectiveness, all subjects combined.
42. Gen-RI: Multiple regression analysis of Facilitative Genuineness, initial validation.
43. Gen-RII: Multiple regression analysis of Facilitative Genuineness, cross validation.
44. Gen-RIII: Multiple regression analysis of Facilitative Genuineness, all subjects combined.

Abstract of Dissertation Presented to the
Graduate Council of the University of Florida in Partial Fulfillment
of the Requirements for the Degree of Doctor of Philosophy

CORRELATES OF VOLUNTEER PERFORMANCE IN A
SUICIDE PREVENTION/CRISIS INTERVENTION SERVICE

By

Edward Leslie Ansel

June, 1972

Chairman: Richard K. McGee, Ph.D.

Major Department: Psychology

An attempt was made to determine possible personality and personal history/demographic correlates of volunteer performance in a suicide prevention/crisis intervention service, and to determine the inter-relationships of various criteria of performance. The personal history/demographic variables, in addition to the usual ones of age, sex, and educational level, included such information as previous psychotherapy and experience with suicidal close friends or relatives. A small group of volunteers who had histories of attempted suicide were isolated for special study. The performance criteria included two volunteer participation variables, Length of Service and the Involvement Ratio, the latter being a measure of relative frequency of serving shifts. Two telephone performance variables, obtained from ratings of actual tape-recorded telephone crisis calls, were Technical Effectiveness and Facilitative Genuineness, the latter being synonymous with un-defensive openness and associated behaviors on the part of the volunteer.

Multivariate statistical analyses failed to yield substantial results in terms of personality and personal history/demographic

correlates of volunteer performance. Some evidence suggested that individuals who have progressed through marriage and child raising may be more likely to participate and do well in telephone crisis intervention work. This finding was congruent with some earlier assertions in the literature. There was no replication of previous findings that effective volunteers tend to be gregarious, sociable, self-assertive, and self-accepting individuals, presumably because the measures employed minimized bias and halo effects. Contrary to some previous assertions in the literature, volunteers who had previously attempted suicide performed at least as well, if not better, than their colleagues. Moreover, their level of participation was nearly identical.

Among the performance variables, average volunteer levels of Technical Effectiveness and Genuineness proved to be significantly but minimally correlated. However, when these variables were correlated on a call-by-call basis, the correlation was extremely high, suggesting that the amount of volunteer defensiveness and discomfort in response to the caller and his problem, in the opening minutes of the call, may determine the adequacy of technical handling of the entire call. This finding, plus the fact that volunteers fluctuate in their levels of TE and Genuineness from call to call, suggested careful monitoring of calls and ongoing supervision as an alternative to a priori screening on the basis of predictor variables such as those employed in the study.

CHAPTER I
INTRODUCTION

During the last decade, one of the most rapidly proliferating phenomena in the area of community mental health services has been the suicide prevention/crisis intervention center. There are 185 or more of these centers currently in operation in this country, and, although there are many differences to be found among them, all offer assistance to persons in crisis, and many with chronic problems, by means of 24-hour telephone services. Typically, the telephone worker intervenes in the caller's crisis, using generally accepted principles and techniques of telephone crisis work, with the desired result being a transfer of the caller to an appropriate helping resource in the community. A combination of effective telephone crisis management and a suitable transfer should eventuate in a healthy resolution of the caller's crisis, thus enhancing his overall psychological adjustment and capacities for dealing with future crisis situations (Caplan, 1964).

Experience has shown that, in nearly all of these centers, approximately 15% of the callers experience crises in which there is some indication of possible suicidal behavior, and only 1% involve attempts already in progress. The large majority of callers are in the midst of nonsuicidal crises involving the whole gamut of

possible stressors, including marital difficulties, financial problems, unwanted pregnancies, and so forth. Interestingly, this appears to be the case even if a service explicitly advertises itself as a suicide prevention center.

Another important feature that the majority of these centers have in common is reliance on nonprofessional volunteers as a source of manpower. Several years ago, McGee (1969) conducted a survey, the results of which indicated that 82% of centers contacted utilized at least some nonprofessional volunteers as telephone workers. The late Louis Dublin, who was both a pioneer and a giant in the study of suicide and its prevention, stated that the nonprofessional volunteer is "...the most important single discovery in the 50-year history of suicide prevention..." (Dublin, 1969). Without doubt, the reduction in costs achieved by the utilization of nonpaid volunteers has been a major factor in the rapid proliferation of these services in the past dozen years.

Background

Volunteer services in the mental health field underwent a marked change in the mid-1950s when a group of Boston area college students, beginning with a group from Harvard, became involved in intense, supervised contact with mental patients in a large state hospital (Umbarger et al., 1962). Their program marked a departure from the usual matronly volunteer dispensing punch and cookies at monthly ward gatherings. This and many similar programs that have followed are described in a number of sources (Arnhoff et al., 1969;

Ewalt, 1967; Guerney, 1969). However, there has been very little research into the performance and characteristics of mental health volunteers in general, and almost none in the specific area of volunteer telephone crisis workers (Jennings & Ansel, 1971; McGee et al., 1972).

The staff of the well-known Los Angeles Suicide Prevention Center was among the first to use nonprofessional volunteers in suicide prevention work. Heilig et al. (1968) described their procedures and criteria for selection. Applicants were obtained primarily through referral from professional colleagues and each participated in a series of three interviews, wrote an autobiography, and completed the Minnesota Multiphasic Personality Inventory (MMPI). The staff developed a set of a priori criteria for selection. Generally, they looked for maturity, responsibility, motivation, sensitivity, willingness to accept training and supervision, and ability to get along well in a group. In particular, they looked for stability in occupation and interpersonal relations and evidence of good judgment in dealing with serious crises in their own lives. Excluded were persons who were disruptive, hypercritical, complaining, rigid, and those who appeared to want to exploit the program to push their own particular conception of human problems and solutions. Those who were selected, in the opinion of the staff, did well in obtaining necessary information about callers, mobilizing callers' resources, and offering callers a direct and friendly relationship. Difficulties included lapses of communication between the volunteers and professional staff and problems of identity for the volunteers. The staff saw three guidelines for selection emerging from their

experience with volunteers: (1) persons who readily disclosed a specific interest in working in suicide prevention, as opposed to other helping roles, were invariably poor choices; (2) it is advisable not to accept an applicant who has had a close brush with suicidal behaviors, either his own or that of a significant other; and, (3) on the other hand, it is not advisable to accept those who have never experienced and coped with significant stress in their own lives (i.e., "psychological virgins"). One must conclude from their paper that the best volunteers are mature, responsible, socially adequate individuals who have successfully resolved their own crises in the past. Furthermore, those who have a particular inclination to become involved in suicide prevention, as opposed to other helping activities, or who have been touched in their own lives by suicidal phenomena, are trying to satisfy some personal needs that interfere with performance. However, this paper does not indicate that any systematic and objective criteria for either selection or performance were utilized, so that their statements must be considered to be rather in the nature of opinion and subject to personal bias and "halo effects." Their guidelines could be considered tentative and subject to possible objective verification, however.

Resnik (1964, 1968) studied a group of volunteers who responded to appeals in the public media to become volunteers in a suicide prevention center in Miami, Florida. The method of recruitment, therefore, differed greatly from that of the Los Angeles group just described. These volunteers were administered a battery of psychological tests and were interviewed for one hour by a trained clinician. Using the test and interview data of 25 volunteers,

Resnik concluded that only seven could be considered "normal," while twelve could be called "neurotic" and six, "psychotic." Resnik also applied the criteria for "degree-of-impairment" used in the Midtown Manhattan Study (Kirkpatrick & Michael, 1962) to this group and concluded that six of the volunteers could be termed "severe and incapacitated." Moreover, the rate of admitted prior suicide attempts was greater for the volunteers (36%) than for the callers (14%) during the first year of operation. A follow-up study showed that three of those 602 callers during the first year actually committed suicide, as did one of the 25 volunteers, giving the latter group a higher rate of both admitted previous attempts and committed suicide. McGee suggested, perhaps only half jokingly, that one might conclude from Resnik's findings that the best way to prevent suicide through early detection and case finding would be to advertise the establishment of a suicide prevention center and treat those who apply for work as volunteers (McGee et al., 1967). Although the performance of the Los Angeles volunteers was not, of course, directly compared with that of the Miami group, a comparison of the reported experience of the Los Angeles people with that of Resnik leads one to assume that selection, even of a highly subjective nature, is to be preferred to no selection at all.

Resnik's data also revealed that the "normal" volunteers, comprising 36% of the group, handled 55% of the calls received, and were considered to be the best volunteers. It thus appears that volunteers judged to be well adjusted on the basis of psychological test and interview data may be capable of greater involvement in a center's activities and perform better than those giving evidence of

maladjustment. However, the administration of psychological tests and professional interviews, and the interpretation of data obtained in these ways, are probably too costly in both time and money for most centers, which generally operate on limited budgets. Easily administered and scored instruments, with prescribed cutoffs, would be more likely to gain acceptance under such circumstances.

A study by McGee et al. (1967) represents the only study known to the investigator that has attempted to relate psychological test and personal history data to specified criteria of performance in a suicide prevention/crisis intervention center (WE CARE, of Orlando, Florida). Before turning to this study, a brief summary of findings relating to attitudes toward suicide attempters held by volunteer crisis workers will be presented. While these attitudes are presumably related to performance in case handling, the nature of this connection, if any, has yet to be demonstrated. The study is, however, one of the few that have utilized volunteer crisis workers as subjects.

Ansel (Ansel, 1969; Ansel & McGee, 1971) investigated the nature and determinants of attitudes toward suicide attempters in various helping groups and the lay public. One of the helping groups was the population of nonprofessional volunteers in a new suicide prevention center. Some of the findings were: (1) the volunteers tended to hold more favorable attitudes toward suicide attempters than the lay public, police, and emergency room personnel (but not significantly so), while closely resembling psychiatric residents and nursing personnel in this regard; (2) the less "intention to die" in a suicide attempt, as perceived by the volunteer, the more

negative his attitude toward the attempter (significantly so in this and three of the five other groups studied); and (3) there was a tendency (just short of statistical significance) for volunteers to hold more favorable attitudes toward attempters after training and several months work experience than before. Unfortunately, no relationships between attitudes and volunteer performance were explored, since performance measures were not available to the investigator.

The McGee et al. study stands out in its attempts to study the relationships between objective predictor variables (test scores and personal history data) and specified criteria of performance. This study actually consisted of two parts: the first was an attempt at the prediction of volunteer involvement from MMPI variables, and the second was an attempt to predict "on the job performance" from test and demographic variables. Actually, involvement could be considered an aspect of performance, since, all else being equal, the volunteer who performs best is the one who comes to the center the most and for the longest time. The most competent volunteer is of no use to the center if he becomes disinterested and quits after a short period of exposure to telephone crisis work.

In the first part of the study, McGee computed biserial correlations between length of volunteer service (dichotomized into six months or less, more than six months) and scores on the usual MMPI validity and clinical scales. The three significant correlations obtained were with the F scale ($r = +.25$, $p < .05$), the D scale ($r = -.34$, $p < .01$), and the Si scale ($r = -.27$, $p < .05$). McGee compared the use of D scale cutoffs and found little or no advantage over accepting all applicants at the prevailing base rate for more

than six months' service, which was 50% in the sample studied. At any rate, there appears to be a minimal relationship between degree of depression and social introversion and dropping out of the program in six months or less (the observed relationships might be even more marked had the time variable not been dichotomized). Such a relationship seems logical, given the nature of the work, which involves relating to callers and coworkers under sometimes depressing conditions. Why there should be a positive relationship between F scale scores and length of service is another matter, however. Dahlstrom and Welsh (1960) reported several personality assessment studies in which high F scale scorers were described in such terms as affected, curious, moody, opportunistic, changeable, complicated, dissatisfied, opinionated, restless, talkative, and unstable. It is difficult to even speculate as to why normal subjects having these traits would tend to stay with a suicide prevention program. At any rate, the relationship, while statistically significant, is of a rather small magnitude and could conceivably be due to chance alone.

McGee, recognizing that there may have been masking effects in his dichotomization of amount of time in the program (presumably performed because some subjects were still active), sought to eliminate these effects by a delineation of "categories of involvement." He developed the following categories:

- A - Persons who dropped out prior to completing orientation training.
- B - Persons who became volunteers, but dropped out in less than six months with limited involvement.
- C - Persons who are currently volunteers, but who maintain limited involvement with the program.

- D - Persons who are no longer volunteers, but who were forced to quit for valid reasons after at least six months of very active involvement.
- E - Persons who are currently volunteers, and who have maintained a high level of involvement from the beginning.

Surprisingly, McGee found that the two most dissimilar categories, A and E, were in fact quite alike in their mean MMPI scale scores. However, the A subjects screen themselves out, not making any effort to affiliate after a brief initial contact. On the other hand, the Bs, who make it through training but drop out shortly without contributing much, differed significantly from the highly involved Ds and Es on the D and Si scales, as in the previous finding. McGee found cutoffs on D and Si that enabled prediction of better than 70% of the volunteers destined to make a major contribution to the center. However, some potential volunteers of this type would be lost, while half of the later dropouts would be admitted. Clearly, the wisdom of using such a cutoff would depend on the available manpower in the community and the expense, in time and money, of training them. Thus, while F scale scores did not discriminate between the categories, the theoretically interesting D and Si once again did.

In the second part of the study, McGee obtained extensive demographic and test data on 22 volunteers. The demographic data were obtained from a Personal Data Sheet completed by volunteers during screening and included age, sex, education, number of children, median age of children, and length of residence in Orlando. In addition to these demographic data, self-ratings of ten personal characteristics (warmth, empathy, security, etc.) were also obtained.

The test data consisted of scores from the following personality tests: Adjective Check List, California Psychological Inventory, Tennessee Self Concept Scale, and the MMPI.

For performance criteria, McGee utilized judges' ratings, made by himself and two directors of the program, of eleven dimensions, including case handling, dedication to the program, reliability, etc. Good interrater reliabilities were obtained. Other criteria were training course attendance and training course quiz scores.

None of the demographic variables or self-ratings correlated significantly with any of the performance criteria. There were, however, a number of possibly meaningful correlations between various personality test scores and the three performance criteria, ranging between $-.63$ and $+.53$, most being in the $.40$ s and $.50$ s. McGee referred to the various test manuals and handbooks to obtain descriptions of the volunteers who were highest on the three performance criteria, based on the observed correlations. Briefly summarizing, it was found that these volunteers could be described as self-accepting, energetic, socially active, self-confident, and self-assertive. On the negative side, qualities such as irritability, self-centeredness, and indifference to the feelings and wishes of others were noted. Reviewing McGee's findings, one is left with the impression that the best volunteers, in terms of the above-mentioned criteria, were a highly extraverted group who were able to be very authoritative and active in dealing with individuals in crisis. McGee also examined cutoff scores on some of these measures and found that he could screen out the worst volunteers with some efficiency, but could not effectively separate the best from the average ones.

McGee's study appears to be of value in that he found some fairly consistent relationships between tendencies to be gregarious, energetic, and assertive, and success in the program. However, the study may be faulted on several counts. First, there were few subjects and many variables involved in the second study, allowing for the possibility of a number of significant relationships due solely to chance. The most important shortcoming, however, is the nature of the performance criteria. The judges' ratings could very well be subject to halo effects and likes and dislikes for certain personality attributes. These ratings were highly correlated with training attendance, but only moderately with quiz scores, and quiz scores had no relationship to attendance. Thus, a volunteer's mastery of the training material may have been less important than the amount of contact that he had had with the judges, which, in turn, may have been a function of their personal compatibility. In short, there is no direct, objective assessment of volunteer performances with callers on the telephone. If personal compatibility were indeed a factor, then the amount of involvement and length of time in the program might also be correspondingly fallible as criteria, since compatibility with the social milieu at the center, rather than liking the work, per se, might be the crucial factor in attrition. Although he did not elaborate on these possibilities, McGee implied that more objective criteria (e.g., caller hang-ups, refusals to give names, etc.) would be most desirable, and indicated that extensive and complete record keeping would be needed in order to collect such data.

Rationale of This Approach

As in the McGee et al. (1967) study, the overall purpose of the present investigation was to determine personality and personal history/demographic correlates of the performance of nonprofessional volunteers in a suicide prevention/crisis intervention service. It departs radically from McGee's approach, however, in two major ways. The first is in the size of the population of volunteers being investigated. Whereas McGee was limited to working with a few dozen volunteers, the present investigator, through his association with the Center for Crisis Intervention Research, has had access to personality test scores and personal history/demographic data obtained from several hundred persons. This group was composed of everyone who ever applied to work at the Suicide and Crisis Intervention Service, Inc., of Gainesville, Florida, and who had remained for a period of time sufficient to take psychological tests and begin training, a period of at least several weeks. Such an increase in the number of available subjects permits the simultaneous examination of many predictor variables in relation to a performance criterion, through the use of multivariate statistical techniques such as multiple discriminant and multiple regression analysis. The opportunity for the use of such techniques represents a major methodological advantage not enjoyed by the previous investigators.

Perhaps most importantly, however, the present investigation represents an attempt to employ much more objective criteria of volunteer performance. In the papers reviewed above, there is the danger that authors such as Heilig et al. (1968) and McGee et al. (1967) have defined the characteristics of volunteers who are liked

and who adapt well to the social milieu of their respective agencies, but who may not be the best telephone workers. For example, McGee suggests that his finding that the best volunteers might be indifferent to the feelings and wishes of others could be a reflection of their ability to assume the authoritative stance that some writers believe essential to effective telephone crisis therapy. It is quite possible, however, that this indifference could be manifested in a lack of sensitivity that might result in disturbance of the channels of communication between the therapist and the caller, another sine qua non of effective telephone work. It is conceivable, if not likely, therefore, that workers could have certain qualities that do not interfere with their capacities for remaining in a program with each other, but which may hamper their effectiveness with callers.

In the present investigation, then, the effort was largely focused upon determining correlates of effectiveness in the actual telephone work situation. While social compatibility with coworkers and directors might very well be an important aspect of volunteer functioning, it was not a matter of focus in the present study. Rather, the thrust was toward eliminating it as a source of variance in the performance criteria. As will be seen below, performance criteria in this study were obtained from actual samples of volunteer telephone crisis work, as contained in tape recordings of authentic crisis calls, and through crisis center records of volunteer participation. Even though some subjective judgments were required in rating various aspects of performance from the taped calls, the persons making these judgments did not know the volunteers being rated, nor did they have any personal investment in the crisis center's

activities that would tend to bias their ratings in any particular direction. It would appear, therefore, that the present investigation has employed criteria of volunteer performance which are by far the most meaningful and objective of any similar study to date.

Specific Aims

The major purpose of this investigation, as stated above, was to determine possible personality and personal history/demographic correlates of volunteer performance in a suicide prevention/crisis intervention service in order to attain some understanding of the characteristics of "good" volunteers. Such information would then be of possible utility to those entrusted with the task of selecting volunteers for the many crisis centers throughout the country.

Another aim of this investigation was to obtain, if possible, multiple discriminant and/or multiple regression functions that would enable a screener to enter the values of personality test and personal history/demographic variables and make a prediction as to a given volunteer's future standing on one or more of the performance criteria. Such functions, which would be a product of the major statistical analyses of the investigation, could then be utilized in situations where cost-efficiency considerations warrant some screening out of applicants with poor potential for involvement and performance in telephone crisis work.

A third aim was to examine intercorrelations between the various performance criteria, where appropriate. If the various criteria were to prove to be highly interrelated, for instance, it might be possible to arrive at some unitary performance index, through a canonical analysis, and use such an index in a regression analysis. In addition,

significant correlations between the performance criteria, positive or negative, might have some important bearing on theoretical thinking about telephone crisis therapy technique.

Given the state of research in the area, it was difficult to formulate specific directional hypotheses concerning the relationship of the personality and personal history/demographic variables to the various performance indices. However, there were some specific questions raised in previous papers that are of interest to workers in the field, and it was hoped that the analyses would shed some light on them. First, is the gregarious, socially poised individual indeed the best telephone crisis worker? The papers by Heilig et al. (1968) and McGee et al. (1967) suggest that this might be the case. Second, is previous psychotherapy an indication or contraindication for the selection of volunteers? Heilig et al., it will be recalled, recommended against the selection of "psychological virgins" and counted among their nonprofessional volunteers a number who had been in psychotherapy. The well-known report by Rioch et al. (1963) indicated that nearly all of the nonprofessional women whom they successfully trained as psychotherapists had previously been in psychotherapy, which was regarded as successful. It would be of interest, then, to determine if this is also true of successful volunteer crisis workers. On the other hand, Heilig et al. caution against the use of volunteers who have had a close brush with suicidal behavior, either their own or that of significant others, and Resnik (1964, 1968), as noted above, found that many of the volunteers in his group had indeed made previous attempts. It was hoped that the analyses would also provide information relevant to this assertion.

CHAPTER II
METHODS AND PROCEDURES

The basic strategy of this investigation was to simultaneously analyze the relationships of a number of personality and personal history/demographic variables to each of several performance variables, and to discover what, if any, relationships existed between the latter. For multivariate analyses such as multiple discriminant analysis and multiple regression analysis, these two classes of variables are commonly categorized as predictor and criterion variables, respectively. This chapter will include, successively, a delineation and description of the subject pool, the predictor variables, the criterion variables, and the procedures for statistical analysis of the data. Since there were four criterion variables under study and two types of statistical analysis employed, both requiring cross validation runs, a series of abbreviations were developed in order to facilitate precise identification of a given analysis in subsequent discussion. This method of abbreviating or coding the analyses for ease of identification and reference is explained at the end of the chapter.

Subjects

The subjects employed in this research were drawn from the population of individuals who had applied to the Suicide and Crisis Intervention Service, Inc. (SCIS), of Gainesville, Florida, in order to

become volunteer telephone crisis workers. The primary means of recruitment was through advertisements in the various public communications media, addresses to civic clubs, etc. With rare exceptions, the staff of SCIS did not discourage anyone from becoming a volunteer. Once his application was received, an individual would embark on a series of steps culminating in his inclusion in a training class, followed by actual telephone service. These steps included taking psychological tests, an interview with a member of the SCIS staff, and another interview with a clinician in any of several Gainesville agencies having no direct affiliation with SCIS. Except for some degree of self-screening at these various steps, there was no elimination of individuals, although screener recommendations concerning volunteer fitness were collected and filed. These recommendations were not employed in the investigation in any way, nor was there any possibility that they might contaminate the criterion variables. Basically, then, the recruitment procedures were similar to those described in Resnik's (1964, 1968) research, and differed considerably from those described in the Hellig et al. (1968) and McGee et al. (1967) papers, where volunteers were obtained, for the most part, through recommendations from colleagues in the mental health professions and/or prominent members of the community.

From a total of 484 individuals applying over a three-year period, groups of varying sizes were utilized in the various analyses, dependent upon specific requirements of the criterion involved and completeness of available data for the predictor variables. These data were obtained from the initial application forms and the major psychological test utilized, the California Psychological

Inventory. Thus, the final subject pool included those who had reached the point of beginning training and who had, consequently, yielded sufficient information to permit the use of all predictor variables. The actual number of subjects employed in each analysis and the requirements for inclusion, dictated by the nature of the criterion, are indicated in the final section of this chapter.

Predictor Variables

The predictor variables were of two classes, as noted above. The first, the personal history/demographic variables, were drawn from raw data in the application forms that could be coded as continuous variables (e.g., years of education) or dichotomized in a manner that would permit meaningful interpretation of possible findings. Because of the requirements of the statistical analyses employed, nominal variables of more than two categories could not be used. In cases where such information was deemed important, the variables were dichotomized by posing one category against all others, sometimes coding the variable twice if more than one category was of interest. Thus, the raw data category of occupation yielded two separate dichotomous predictor variables, student vs. other and homemaker vs. other, since both groups were known to be prominent in crisis center volunteer populations across the nation.

Two of these variables, age and years of education, were coded as continuous variables. The remainder was coded with a value of one if the raw data indicated that a subject exhibited the characteristic under consideration and a value of two if he did not. For example, a volunteer who admitted to being in psychotherapy at some

time in his life was coded as a "one" on the psychotherapy variable. A working registered nurse was coded as a "two" on the homemaker variable, because she was working at her profession when she applied for volunteer work, and not primarily as a housewife. A person who indicated any religious affiliation at all on his application was coded as a "one"; he became a "two." otherwise. It would have been of interest to attempt to quantify some of these variables into a measure of degree of religiosity or relative satisfaction with psychotherapy, for example. Unfortunately, the raw data were not appropriate to such attempts at quantification. The final list of predictor variables, in addition to the continuous ones of age and education, included the following dichotomized ones: single marital status vs. other; married vs. other; any children vs. no children; student vs. any other occupation; homemaker vs. any other occupation; religious preference stated vs. none stated; ever being in psychotherapy vs. no psychotherapy; and suicidal close friend or relative vs. no suicidal friend or relative. The latter variable referred to any threats, attempts, or committed suicide among close significant others in the volunteer's life. Subject sex was coded "one" for males and "two" for females.

These variables will be referred to below by the key words involved (e.g., "Psychotherapy"). It should be remembered that the variable values refer to information obtained just prior to the beginning of training. Among the total pool of subjects, 39 were identified as having admitted to a previous suicide attempt of their own. Because of limitations imposed by the choice of multiple discriminant analysis and multiple regression analysis as the major

statistical methods of this investigation, this theoretically interesting variable was deleted from the major analyses. However, special computations and cross tabulations of this variable with a few other variables of interest were obtained, and will be discussed below.

The second class of predictors was composed of the personality variables, reflected in scores on the eighteen subscales of the California Psychological Inventory, or CPI (Gough, 1957). This inventory, known as "the normal man's MMPI," was selected as a potential screening device by the original director of SCIS, on the assumption that a non-pathology-oriented instrument would be most appropriate for the population involved. The test yields scores on the eighteen subscales, which are grouped in the manual as shown in Table 1.

Eleven personal history/demographic variables and eighteen personality test variables, forming a total of 29 predictor variables, were employed in each of the major analyses. One personal history variable, previous suicide attempt, was examined separately, as mentioned previously.

Criterion Variables

A major analysis, including cross validation and combined validation group runs, was performed for each of the four criterion variables. Two of these reflected levels of volunteer participation in the program, while the remaining two reflected different aspects of performance in actual telephone crisis work.

TABLE 1

Subscales of the California Psychological InventoryClass I. Measures of Poise, Ascendancy, Self-Assurance,
and Interpersonal Adequacy

1. Do Dominance
2. Cs Capacity for Status
3. Sy Sociability
4. Sp Social Presence
5. Sa Self-acceptance
6. Wb Sense of Well-being

Class II. Measures of Socialization, Maturity, Responsibility,
and Intrapersonal Structuring of Values

7. Re Responsibility
8. So Socialization
9. Sc Self-control
10. To Tolerance
11. Gi Good Impression
12. Cm Communnality

Class III. Measures of Achievement Potential and Intellectual
Efficiency

13. Ac Achievement via Conformance
14. Ai Achievement via Independence
15. Ie Intellectual Efficiency

Class IV. Measures of Intellectual and Interest Modes

16. Py Psychological-mindedness
17. Fx Flexibility
18. Fe Femininity

Volunteer Participation Variables

The two variables reflecting volunteer participation were Length of Service and the Involvement Ratio. The former was conceptualized as a measure of the total duration of a volunteer's nominal association with the center, while the latter was seen as an index of the volunteer's activity in the center during this period. They were operationalized as follows.

Length of Service (LS).--In raw form, this variable was merely the length of time, in days, between completion of training and resignation from volunteer work at the center. In cases where volunteers dropped out without formal notification to the staff, the terminal date was taken as the last shift served, as determined from weekly shift schedules kept by the center staff. Since training groups had been recruited and trained on a quarterly basis, terminal dates could not be established for a considerable proportion of the volunteers. Thus, the fact that there were differential starting times for the various training groups, with considerable numbers of volunteers still in service, presented an obstacle to meaningful assignment of LS scores on the basis of the raw number of days in service. In essence, the distribution of LS in each training group was truncated at the upper extreme because of volunteers still in service, especially in later groups. Furthermore, many volunteers had LS scores of zero because they had dropped out during training.

Several alternative methods were explored to overcome this difficulty. Classification of a volunteer as either above or below the median of his training group seemed inappropriate, since the medians were not identical. This strategy would have yielded different scores

to some individuals in different training groups having the same absolute LS, in days. Similar difficulties would have developed in other transformations involving deviations from the central tendencies of the different groups, such as \bar{z} or \bar{t} scores, which would have also been inappropriate because of the relatively small numbers in some groups. The use of a life table approach was considered, but this strategy was also dropped when it became evident that truncated raw scores (i.e., scores of people still known to be in service at the time of analysis) would be equal to those of people who had actually terminated after the same number of days that the former were exposed to risk of quitting, even though the former had continued beyond a specified cutoff point. For example, if the latest training group had only been in existence for three months at the time of analysis, those who were still in service at this cutoff point would have received the same score as a person in an earlier group who quit after three months, even though the former might continue serving for much longer periods. This would have introduced considerable bias into the scores, increasingly as the time of a group's inception approached the time of analysis.

The strategy that was finally adopted involved dichotomization of LS at the point of 100 days' service, with a person being classified as dropping out either before this point or some time after it. Though all of the possible information regarding relative standing on LS would not be effectively utilized, the serious bias introduced by the other methods would be avoided. Either a volunteer made it to this point, or he did not; it did not matter that the extent of his progress beyond

100 days was not known. It was known, at least, and with complete accuracy, whether he had made it to that point or not.

The choice of 100 days as a dividing point was made because of the following considerations:

1. It permitted the use of data from seven training groups. On Sept. 1, 1971, the cutoff point, the seventh training group had been in existence 112 days after completion of training.
2. The use of this dividing point permitted a reasonably symmetrical split for utilization in a two-group discriminant analysis.
3. It would seem that the staffs of centers such as SCIS, who recruit and train on a quarterly basis, would need volunteers who would serve a minimum of three months or so after training.
4. At SCIS, the policy is to serve three months prior to making an application for permanent volunteer status. Therefore, such a division would indicate whether a volunteer survived the probationary period ending three months after the completion of training.

Involvement Ratio (IR).--Experience has shown that many volunteers stay nominally associated with SCIS but fail to take shifts on a once weekly basis, as desired by the staff. Some will drop out for weeks at a time, taking shifts very sporadically. On the other hand, some volunteers are highly involved in the center's activities, taking not only their assigned weekly shifts, but also those missed by others. It seemed appropriate, therefore, to assign scores to volunteers reflecting this differential involvement. The IR score was computed by dividing the number of shifts taken during a volunteer's known period of service by the number of days in that period, provided that it was greater than zero. Unlike LS, this was a ratio computed with all known

information in the data concerning the shifts and days of service observed. The problem of truncated distributions was avoided by using this ratio. For computational purposes, this ratio was multiplied by a constant, 10,000.

Telephone Performance Variables

All incoming calls at SCIS are routinely tape recorded. These tapes are periodically collected and all recorded opening crisis calls (the very first calls made by clients to SCIS) are transposed to master tape reels, which are kept under security in the SCIS tape library. Without doubt, it is in the initial call made by a client in crisis that a volunteer can make his greatest impact.

Technical Effectiveness (TE).--The literature on telephone crisis intervention has provided a set of principles and techniques for handling these first calls. Fowler (Fowler & McGee, in press; Knickerbocker & Fowler, 1971) has reviewed this literature and, using the SCIS tape library, developed a Technical Effectiveness (TE) Scale. This scale is basically a nine-item behavior checklist that includes all of the major principles and techniques of telephone crisis work, including identification of the caller, inquiries regarding significant others, and formulating an action plan. Listening to complete tape recordings of initial calls from clients, raters score each item as "yes" or "no," depending upon whether the volunteer performed that particular function. The total score is the proportion of items rated "Yes." All of the behaviors reflected in the items are considered imperative to effective telephone work. The TE Scale, which is reproduced in the Appendix, is characterized by extremely

high intra- and interrater reliability and has good content validity, in that the items include all of the generally accepted principles of telephone crisis intervention. For further information concerning the scoring and development of the scale, the reader should consult the article by Fowler and McGee.

In the present investigation, nineteen undergraduate psychology students were trained to rate TE. The interrater reliability was .89 for ten randomly picked calls, using Ebel's intraclass correlation coefficient, as described by Guilford (1954). This coefficient is essentially the average intercorrelation between all pairs of raters.

Facilitative Genuineness.--It has been suggested by some (e.g., Knickerbocker & Fowler, 1971) that effective telephone crisis work might involve more than the mechanical application of the principles delineated in the literature and represented in the TE Scale. A likely possibility is that the therapist-offered facilitative conditions, investigated in the client-centered therapy research literature, may be an important feature of the interaction in crisis calls. Indeed, Truax and Carkhuff (1967) have reviewed a number of studies indicating a positive relationship between the levels of these therapist-offered conditions and the amount of constructive client change, with a wide variety of therapist and client types. These conditions are viewed as having ubiquitously positive effects in all human relationships (Carkhuff & Berenson, 1967). There is no reason to believe that they do not also influence the caller in his relationship with the crisis center volunteer. High levels of these facilitative conditions should complement high levels of TE. In fact, the determination of the relationship between these two variables was of major concern in this investigation.

Three undergraduate psychology students were trained to rate crisis call tapes using Lister's Facilitative Genuineness Scale, chosen as being representative of the scales used to measure these conditions.¹ The correlation of Lister scale ratings with a parallel scale used by Truax and Carkhuff is about .49.² Rating the performance of volunteers in the opening five minutes of nine crisis calls, these raters attained an interrater reliability of .83, again using the intraclass correlation coefficient.

As can be seen from the reproduction of Lister's scale in the Appendix, the content deals primarily with the degree of defensiveness exhibited by the therapist (or volunteer, in the present case). High ratings are indicative of undefensive, spontaneous, honest, and relaxed therapist response, while the converse is true of low ratings.

In order to obtain stable estimates of both TE and Genuineness levels, it was decided to attempt ratings on the first three calls of each volunteer. The SCIS tape library logs were scanned in order to obtain a list of volunteers known to have taken at least three calls that had been entirely preserved on tape, in order that TE ratings be accurately completed. In addition to the criterion of completeness of the taped calls, it was stipulated that each call be at least three minutes in length, for the following reasons: (1) the Genuineness scale requires the availability of taped segments of at least several minutes' duration; and (2) many of the preserved calls were almost immediate hangups, and it was assumed that these were due to "caller variance" and not the volunteer's performance. The TE raters listened

¹Available from Dr. James Lister, Department of Counselor Education, College of Education, University of Florida.

²Dr. James Lister, personal communication.

to the entire call and rated it for TE only. The Genuineness raters listened to the first five minutes, or the entire call if it lasted between three and five minutes, and then rated the volunteer on Genuineness. Although the Genuineness raters were familiar with the TE scale, they were not using it at the time of their rating and were only rating the opening minutes of each call. There is, therefore, no reason to suppose that any relationship between the two sets of ratings could be due to mutual contamination.

Thus, for each subject having the requisite number of calls, TE and Genuineness ratings were obtained from separate raters across three calls. Unfortunately, 12% of an original list of 107 volunteers had one call that had to be discarded for technical reasons. Rather than eliminate these subjects, it was decided to use two calls for the estimates of TE and Genuineness. There was an additional loss of several subjects because of incomplete predictor variable data. The final group received individual TE and Genuineness scores on their calls, and the mean of the ratings across each subject's calls was taken as an index of his average level of functioning on these variables. These average TE and Genuineness levels constituted the criterion variables for subsequent regression analyses.

Procedures for Statistical Analysis

Stepwise multiple discriminant analysis was employed in the investigation of the LS variable. This method of analysis yields a function which employs predictor variables in such a manner that the best discrimination between criterion groups is achieved. In the present case, the two criterion groups were composed of volunteers with 0-99 post-training days of service and volunteers having 100 or

more days of service. The stepwise feature of this analysis selects predictor variables in successive steps, beginning with the variable affording the greatest discrimination between the criterion groups, then adding, successively, variables affording the best discrimination when partialled on the previously entered ones. The final function, then, weights the predictor variables differentially to produce the best discrimination between groups, according to the unique contributions of each variable to separation of the groups.

A computer program from the Biomedical Computer Programs library was employed in this analysis. The program is referred to as BMD07M in the manual (Dixon, 1967). In addition to the stepwise presentation of the discriminant function, it determines whether the addition of variables significantly adds to discrimination.

The analysis was actually performed twice. A total of 230 available subjects were randomly sorted into two groups of 111 and 119, forming initial validation and cross validation samples, respectively. In the first computer run, the function was developed on the first group and then tested on the second, in order to obtain a less biased estimate of the error rate than could be obtained from a single validation. The error rate reflects the degree of inaccuracy in classification when the discriminant function is used to predict criterion group membership of a case, given the predictor variable scores. This run will be referred to hereinafter as LS-DI, denoting that the criterion variable was Length of Service (LS), the type of analysis was discriminant (D) analysis, and that this was the first (I) validation run.

The second run, LS-DII, was a second discriminant analysis, using all 230 subjects in the derivation of the function. These two runs

were the only ones in this investigation that employed stepwise discriminant analysis.

For the IR, TE, and Genuineness variables, the method of analysis was stepwise multiple regression. This analysis closely parallels the discriminant analysis just described, except for the fact that the criterion variable is continuous and the aim is to derive a function that weights predictor variable scores in such a manner that the resulting values correlate as highly as possible with the criterion variable. Similar information concerning the addition of variables is obtained, although the calculation methods differ. In order to perform these analyses, the multiple regression program of the Statistical Package for the Social Sciences (Nie et al., 1970) was employed.

For each variable, the available cases for analysis were randomly divided into two groups for two separate validations, then recombined for a third. Thus, Gen-RII refers to the second validation run for the Genuineness criterion, using multiple regression. In these three regression analyses, Roman numeral III always refers to the analysis for all available subjects combined. It should be remembered that LS-DII was the discriminant analysis for all LS subjects combined. For ease of reference, Table 2 lists each run of all of the major analyses, with the number of subjects (N) included in each.

The remaining statistical computations included: (1) the proportion of subjects in each of the two LS categories; (2) means and standard deviations of IR, TE, and Genuineness; (3) a matrix of their intercorrelations; (4) a correlation coefficient of TE and Genuineness on a call-by-call basis, for 308 individual calls; and, (5) cross tabulations of the dichotomous variable of admitted previous suicide

TABLE 2

Listing of Multiple Discriminant and Multiple Regression Runs, with Number of Subjects in Each^a

| Run | N |
|------------|-----|
| LS - DI | 111 |
| LS - DII | 230 |
| IR - RI | 97 |
| IR - RII | 63 |
| IR - RIII | 160 |
| TE - RI | 56 |
| TE - RII | 42 |
| TE - RIII | 98 |
| Gen - RI | 56 |
| Gen - RII | 42 |
| Gen - RIII | 98 |

^aSee text, p. 29, for explanation of abbreviations, or consult List of Abbreviations, p. vi.

^bThis run included an estimate of error rates on a holdout sample (N = 119).

attempt with three other dichotomous variables. The three were:

(1) ever began service; (2) LS, for those who did begin; and

(3) ever a member of the SCIS Crisis Counselors or Care Team, representing advancement to the highest levels of volunteer participation and responsibility. In addition, mean values and standard deviations for IR, TE, and Genuineness were calculated for these subjects.

CHAPTER III

RESULTS

Following the plan of Chapter II, the results will be presented according to the four criterion variables involved, beginning with the volunteer participation variables of LS and IR, followed by the telephone performance variables of TE and Genuineness. The descriptive statistics regarding these variables will be presented as each is discussed. Finally, the intercorrelations between the criterion variables will be presented, followed by the findings regarding those volunteers admitting to previous suicide attempts.

From an initial pool of 484 applicants, 230, or 49%, progressed to the point of beginning training. Of the latter, who became subjects in the LS analysis, 107, or 47%, progressed to the point of completing 100 days' service. Thus, of all people who apply for telephone volunteer work at SCIS, only about 22% remain long enough to be considered permanent volunteers.

The LS analyses failed to yield results indicating a relationship between personality or personal history/demographic variables and longevity as a crisis center volunteer. No variables in LS-DI contributed significantly to a function that would discriminate the groups. Only one, age, even approached significance at the .05 level, and even this variable failed to achieve the F- value needed for inclusion in the LS-DII function. The cross validation error rates

indicated that, after the first step, 47% of the low group and 53% of the high group would have been incorrectly classified by the function. After the addition of 24 more variables, the error rate for lows decreased to 29%, but the rate for highs remained at 53%.

LS-DII, which combined all subjects, indicated that a significant positive relationship existed between having children and staying in service ($F = 5.60038$, $df = 1, 228$, $p < .05$). In LS-DI, the direction of this relationship was the same, but failed to reach significance. No other variables contributed significantly to further discrimination. Error rates were computed, but the data utilized were the same used to derive the function. Thus, these estimates should be biased in the direction of yielding lower error rates. These rates were 47% and 37% for the low and high groups, respectively, after the first step. After the addition of 27 variables, there was a slight decrease to 34% and 35%.

The Involvement Ratio, it will be recalled, was computed by dividing the number of shifts taken by the number of days service, and then multiplying by 10,000. The value of the Involvement Ratio was computed for a hypothetical volunteer who served once weekly during the course of a year, missing four shifts during that year for vacation, sickness, etc. Such a record would correspond closely with the usual commitment asked of volunteers at centers throughout the nation. The computed IR value was 1315.069. The mean IR for 192 subjects at SCIS was 996.354, with an extremely large standard deviation of 850.7039. The value of the mean indicates that, on the average, volunteers work considerably less than once weekly, even allowing for one entire month off. Moreover, the large standard deviation suggests that many volunteers serve only sporadically, while others do much more than their fair share to fill in for them.

The regression analyses employing IR did not produce stable, clear cut results. Tables 3, 4, and 5 are the summary tables for IR-RI, IR-RII, and IR-RIII, respectively. The column headed "Multiple R" gives the multiple correlations between all predictor variables, taken cumulatively as one proceeds down the table, and the criterion variable. "R-Square," the square of the multiple correlation, is the proportion of the variance in the criterion that can be accounted for by the variance in the combination of predictors. "R-Sq Change" is the increment in R-Square achieved by the addition of each successive variable. The column entitled "Simple r" contains the correlations of each predictor variable, considered separately, with the criterion. The columns entitled "B" and "Beta" refer to the regression weights in the prediction equation, Beta being the standardized form. The constant is the value that must be added when B weights are used to weight the predictor variables in a linear function, in order to obtain a predicted score.

As Table 3 shows, a number of predictor variables were significantly correlated with the criterion in IR-RI, when considered individually. At the .01 level of significance (N=97), in addition to years of school, the following CPI variables were negatively related to IR: Intellectual Efficiency (Ie), Achievement via Conformance (Ac), Tolerance (To), Sense of Well-being (Wb), Achievement via Independence (Ai), Capacity for Status (Cs), and Social Presence (Sp). In addition to these variables, the CPI variables Socialization (So) and Dominance (Do) were also negatively correlated with IR, at the .05 level of significance. The results indicated that Ie exhibited the

TABLE 3

IR-RI, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|------------|---------|
| Ie | .43596 | .19006 | .19006 | -.43596** | -20.45200 | -.32051 |
| Yrs. of School | .47804 | .22853 | .03847 | -.36000** | -65.70596 | -.22000 |
| Py | .49918 | .34918 | .02065 | -.13754 | 16.96073 | .23894 |
| Ac | .52216 | .27265 | .02347 | -.38001** | -27.72029 | -.43602 |
| Fx | .54854 | .30089 | .02824 | -.19514 | -10.25485 | -.17378 |
| Suicidal Fr. or Rel. | .57068 | .32567 | .02478 | -.18726 | -230.40071 | -.17077 |
| To | .58368 | .34068 | .01500 | -.28106** | 16.83880 | .24634 |
| Children | .59396 | .35279 | .01211 | .04305 | 302.67924 | .22839 |
| Age | .61315 | .37595 | .02316 | .04072 | 14.63259 | .20919 |
| Fe | .62497 | .39058 | .01464 | .12206 | 8.11399 | .12307 |
| Student | .63296 | .40063 | .01005 | -.08613 | -161.10944 | -.12091 |
| Sc | .64089 | .41074 | .01010 | -.05076 | 44.57221 | .61892 |
| Wb | .65376 | .42740 | .01666 | -.34663** | -16.34736 | -.24127 |
| Homemaker | .66305 | .43963 | .01223 | -.00541 | 233.35490 | .08732 |
| Gi | .66967 | .44846 | .00883 | -.17063 | -26.90067 | .34320 |
| Re | .67650 | .45765 | .00919 | -.14563 | 11.77966 | .17160 |
| Sa | .68314 | .46668 | .00903 | -.19836 | 9.60972 | .15315 |
| Ai | .68843 | .47393 | .00726 | -.32974** | -16.12179 | -.21150 |
| Cs | .69207 | .47896 | .00503 | -.28801** | 9.06811 | .13172 |
| Psychotherapy | .69523 | .48334 | .00438 | .11505 | 135.32935 | .08941 |
| Cm | .69824 | .48753 | .00419 | -.10004 | -4.24056 | -.08211 |
| So | .70065 | .49090 | .00337 | -.20552* | -9.72973 | -.13112 |
| Religion | .70424 | .49595 | .00505 | -.00262 | -133.84250 | -.08843 |
| Sp | .70702 | .49988 | .00393 | -.27925* | 6.99697 | .12655 |
| Married | .70758 | .50067 | .00080 | .09473 | 118.88110 | .09229 |
| Do | .70791 | .50113 | .00046 | -.23197 | -2.67694 | -.04555 |
| Single | .70823 | .50159 | .00045 | -.11517 | 94.76462 | .07313 |
| Sex | .70834 | .50175 | .00016 | .10142 | 21.78675 | .01578 |
| (Constant) | | | | | 1406.54245 | |

*p < .05

**p < .01

TABLE 4

IR-RII, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|------------|---------|
| Fx | .27752 | .07702 | .07702 | .27752* | 18.24622 | .22190 |
| Student | .40944 | .16764 | .09062 | .22071 | 603.65949 | .39005 |
| Sp | .45211 | .20440 | .03676 | .22276 | -.72769 | -.00920 |
| Py | .48746 | .23762 | .03322 | .01499 | -20.00076 | -.23628 |
| Suicidal Fr. or Rel. | .50567 | .25570 | .01808 | .07611 | 292.32982 | .17340 |
| Cm | .51876 | .26911 | .01341 | -.03305 | -4.95282 | -.13933 |
| Psychotherapy | .52998 | .28088 | .01177 | -.23104 | -114.99850 | -.07007 |
| Sa | .53896 | .29048 | .00960 | .15565 | -3.13184 | -.03965 |
| Married | .54753 | .29979 | .00931 | -.14631 | -40.69333 | -.02479 |
| Re | .55689 | .31013 | .01034 | -.04765 | -20.99059 | -.25019 |
| Ie | .56942 | .32424 | .01411 | .20518 | 10.87620 | .12082 |
| To | .57891 | .33514 | .01090 | .03236 | -23.57394 | -.29419 |
| Cs | .58616 | .34359 | .00845 | .27004 | 7.90543 | .10016 |
| Homemaker | .59313 | .35180 | .00821 | .10259 | 306.18363 | .10697 |
| Sex | .59771 | .35726 | .00546 | -.11463 | -271.09764 | -.16517 |
| Wb | .60277 | .36333 | .00606 | .08830 | 24.15171 | .29581 |
| Do | .60802 | .36968 | .00636 | .14910 | 15.81743 | .20929 |
| Single | .61198 | .37452 | .00483 | .18253 | 281.32681 | .18068 |
| Gi | .61567 | .37905 | .00453 | -.04207 | -5.30122 | -.06338 |
| Ai | .61867 | .38275 | .00370 | .08645 | 8.81071 | .08973 |
| Fe | .62064 | .38520 | .00244 | .06506 | 5.66450 | .07071 |
| So | .62222 | .38715 | .00196 | -.05689 | -2.35346 | -.02456 |
| Age | .62359 | .38887 | .00172 | .15768 | -19.93784 | -.20675 |
| Yrs. of School | .62560 | .39137 | .00250 | .25456* | 51.37381 | .14070 |
| Children | .62972 | .39654 | .00517 | -.11040 | -244.34333 | -.14018 |
| Ac | .63150 | .39879 | .00225 | -.04112 | -7.94647 | -.09695 |
| Sy | .63172 | .39907 | .00028 | .16176 | 3.48375 | .04622 |
| Sc | .63194 | .39935 | .00028 | -.09541 | -4.13126 | -.05033 |
| (Constant) | | | | | -855.62557 | |

*p < .05

TABLE 5

IR-RIII, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|---------------------|-----------------|--------------|----------------|-------------|------------|---------|
| Ac | .23130 | .05130 | .05350 | -.23130** | -17.70397 | -.25001 |
| Age | .24513 | .06009 | .00659 | .08192 | 9.43756 | .11852 |
| Fe | .25750 | .06631 | .00622 | .10178 | 4.41251 | .06159 |
| Homemaker | .26692 | .07125 | .00494 | .04272 | 232.37932 | .08409 |
| Yrs. of School | .27446 | .07533 | .00408 | -.09800 | -31.58318 | -.09713 |
| Religion | .28579 | .08167 | .00635 | .07198 | 129184540 | .08170 |
| Psychotherapy | .38979 | .08398 | .00230 | -.05182 | -70.31279 | -.04490 |
| Sc | .29407 | .08648 | .00250 | -.07665 | 23.62720 | .31019 |
| Wb | .29950 | .08970 | .00323 | -.15738* | -5.48111 | -.07445 |
| Cs | .30622 | .09377 | .00407 | -.03812 | 9.58059 | .13063 |
| Gi | .31250 | .09765 | .00389 | -.10895 | -14.53498 | -.17956 |
| Ai | .31999 | .10239 | .00474 | -.14858 | -12.44295 | -.14669 |
| Do | .32706 | .10697 | .00457 | -.06231 | 6.92638 | .10655 |
| Ie | .33166 | .11000 | .00303 | -.17698 | -7.24987 | -.09879 |
| Suicidal Fr. or Rel | .33509 | .11228 | .00229 | -.07038 | -82.41031 | -.05547 |
| Sp | .33918 | .11504 | .00276 | -.07081 | 5.94178 | .09372 |
| To | .34129 | .11648 | .00143 | -.13719 | 5.67145 | .07727 |
| Sy | .34258 | .11736 | .00089 | -.10597 | -3.93572 | -.05959 |
| Sex | .34375 | .11816 | .00080 | .00518 | 56.02172 | .03753 |
| Sa | .34479 | .11888 | .00072 | -.03996 | 3.13811 | .04548 |
| Student | .34554 | .11940 | .00052 | .04166 | 44.25516 | .03129 |
| Cm | .34616 | .11983 | .00043 | -.06996 | .88085 | -.02140 |
| Children | .34653 | .12008 | .00026 | -.01312 | 16.77278 | .01134 |
| Married | .34706 | .12045 | .00037 | .00218 | -112.29984 | -.07939 |
| Single | .34841 | .12139 | .00094 | .00818 | -117.35445 | -.08389 |
| Re | .34868 | .12158 | .00019 | -.10329 | 1.35074 | .01800 |
| (Constant) | | | | | 1156.12495 | |

*p < .05

**p < .01

highest F- value of all of these variables. There were no further significant contributions to the magnitude of the multiple correlation from the inclusion of additional variables.

In IR-RII, which employed considerably fewer subjects ($N = 63$), these relationships did not hold. Years of school became positively associated with IR, at the .05 level, while a new variable, the CPI Flexibility (Fx) score, was also positively correlated at this significance level. Fx exhibited a significant F- value, but no other variables added significantly.

When all subjects were included, the negative correlation of Ac with IR survived, still significant at the .01 level, while Wb also remained significant, but this time at the .05 level. The multiple correlation obtained in IR-RIII was considerably smaller than those in IR-RI and IR-RII. This finding, in addition to the fluctuations in significance levels and signs of the simple correlations, suggests considerable random variation in the scores. At best, it appears that Ac, and possibly Wb, shows a stable negative relationship to IR. In summary, Ac was significantly and negatively correlated with IR in IR-RI, again negatively, though insignificantly, correlated in the smaller sample in IR-RII, and exhibited a continued negative correlation in IR-RIII, still significant at the .01 level, but reduced in magnitude in comparison with the value obtained in IR-RI. In IR-RIII, it offered the most unique contribution to the multiple correlation, with no other variables adding significantly, including Wb.

In the analyses employing the TE and Genuineness criteria, random variation seems to have been even more of a problem, in that the available subject pool was much smaller than that of the IR analysis. Tables 6, 7

TABLE 6

TE-RI, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|-----------|---------|
| Children | .26670 | .07113 | .07113 | -.26670* | -7.74971 | -.19912 |
| Cs | .35682 | .12732 | .05619 | .21573 | .01421 | .00692 |
| Fy | .45863 | .21034 | .08302 | -.18478 | -.78320 | -.41022 |
| Re | .49837 | .24837 | .03803 | .17753 | .81037 | .42276 |
| Cm | .52995 | .28085 | .03248 | -.02990 | -.06688 | -.06656 |
| To | .55350 | .30636 | .02551 | -.05374 | -.70451 | -.39970 |
| Religion | .57708 | .33302 | .02667 | .08106 | 19.66986 | .44403 |
| Fx | .60611 | .36738 | .03435 | -.20303 | -1.23521 | -.71906 |
| Ai | .63735 | .40622 | .03884 | .01764 | 1.54979 | .82161 |
| Student | .65886 | .43409 | .02787 | .09380 | -12.37626 | -.33848 |
| Fe | .67721 | .45862 | .02453 | .21553 | .63823 | .35030 |
| Sp | .69334 | .48072 | .02210 | .05550 | .36091 | .23699 |
| Sex | .70085 | .49119 | .01047 | .08836 | 1.63442 | .04391 |
| So | .70592 | .49832 | .00713 | .11904 | .45162 | .23037 |
| Sc | .71391 | .50966 | .01134 | -.10552 | -1.80312 | -.89135 |
| Gi | .74136 | .54962 | .03995 | -.01282 | 1.48262 | .63175 |
| Age | .75541 | .57065 | .02103 | .23094 | .90856 | .44931 |
| Wb | .76077 | .57878 | .00813 | -.05961 | .29817 | .16696 |
| Homemaker | .76600 | .58676 | .00798 | -.16782 | 8.53306 | .10571 |
| Married | .77240 | .59660 | .00985 | -.18207 | 28.38351 | .77275 |
| Psychotherapy | .77731 | .60421 | .00761 | -.16472 | -3.79059 | -.07987 |
| Sy | .78319 | .61339 | .00918 | .16294 | -.50559 | -.28228 |
| Single | .78907 | .62262 | .00924 | .19769 | 21.93699 | .60189 |
| Suicidal Fr. or Rel. | .79225 | .62766 | .00504 | .01757 | 5.06555 | .13353 |
| Yrs. of School | .79349 | .62963 | .00196 | .03523 | -.62626 | -.07212 |
| Sa | .79484 | .63177 | .00214 | .09437 | .14586 | .08198 |
| Ac | .79531 | .63252 | .00075 | .06797 | .13267 | .07182 |
| Do | .79554 | .63288 | .00036 | .01510 | -.07105 | -.04199 |
| (Constant) | | | | | -77.02564 | |

*p < .05

TABLE 7

TE-RII, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|-----------|----------|
| Single | .30155 | .09093 | .09093 | .30155* | 9.37159 | .31360 |
| Cm | .37412 | .13997 | .04903 | .28353 | .09315 | .13233 |
| Fe | .42541 | .18097 | .04100 | .17477 | .97540 | .61614 |
| Re | .46316 | .21452 | .03355 | -.03355 | -.11167 | -.07314 |
| Married | .51025 | .26036 | .04583 | -.15157 | 3.56885 | .11777 |
| Gi | .53062 | .28156 | .02120 | .20569 | .35586 | .20448 |
| Homemaker | .54603 | .29815 | .01659 | .12342 | 37.79220 | .65436 |
| Children | .57482 | .33042 | .03227 | -.23734 | -36.40233 | -1.07604 |
| Age | .59622 | .35547 | .02505 | .15955 | -1.56490 | -.84888 |
| Wb | .62492 | .39052 | .03505 | .07592 | -.71428 | -.39299 |
| Sex | .64384 | .41453 | .02401 | .19753 | 13.32296 | .41409 |
| Student | .66284 | .43936 | .02483 | .17781 | 12.41798 | .40980 |
| So | .68012 | .46257 | .02321 | .12766 | .42385 | .22154 |
| Ai | .69707 | .48591 | .02334 | -.11054 | -.89667 | -.44899 |
| Sa | .70906 | .50277 | .01686 | .00174 | .56563 | .38111 |
| Religion | .72071 | .51942 | .01665 | .04455 | 4.63321 | .14072 |
| Fx | .73562 | .54113 | .02171 | .09483 | -.56588 | -.28565 |
| Fy | .74534 | .55553 | .01440 | .01626 | -.42814 | -.24786 |
| Sy | .75030 | .56295 | .00741 | .09508 | -.45055 | -.31644 |
| Do | .75667 | .57255 | .00960 | -.01068 | .16324 | .09940 |
| Ac | .76023 | .57795 | .00540 | .05839 | -.40404 | -.25563 |
| Cs | .76316 | .58241 | .00446 | .00780 | -.12130 | -.07741 |
| Ie | .76628 | .58719 | .00478 | -.01492 | .08679 | .04927 |
| Yrs. of School | .76882 | .59108 | .00389 | .06306 | .94852 | .12765 |
| Sp | .77106 | .59453 | .00345 | -.10883 | .50955 | .30395 |
| Sc | .77731 | .60421 | .00968 | .15004 | .69987 | .37640 |
| To | .77986 | .60818 | .00397 | -.05440 | .32751 | .22034 |
| Suicidal Fr. or Rel. | .78139 | .61056 | .00238 | .08036 | -2.80626 | -.08894 |
| Psychotherapy | .78160 | .61090 | .00034 | -.00911 | -1.08066 | .03282 |
| (Constant) | | | | | -.53294 | |

*.10 < p < .05

TABLE 8

TE-RIII, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|----------|---------|
| Children | .25188 | .06344 | .06344 | -.25188* | -6.43198 | -.17418 |
| Fe | .33607 | .11294 | .04950 | .20421* | .38101 | .22307 |
| Sa | .37850 | .14326 | .03032 | .06472 | .35750 | .21716 |
| Sex | .39921 | .15937 | .01610 | .13121 | 6.63521 | .18862 |
| Religion | .42078 | .17706 | .01769 | .06884 | 7.08774 | .18082 |
| Fy | .43735 | .19127 | .01422 | -.10660 | -.39643 | -.21671 |
| Ie | .45871 | .21042 | .01914 | .03929 | .27106 | .15028 |
| Gi | .47061 | .22148 | .01106 | .07414 | .57711 | .27728 |
| Sc | .48449 | .23473 | .01326 | -.02103 | -.36620 | -.18822 |
| So | .49573 | .24574 | .01101 | .12123 | .34004 | .17476 |
| Single | .50750 | .25756 | .01181 | .23852* | 4.4334 | .13151 |
| Cm | .51757 | .26788 | .01032 | .09193 | .08477 | .09893 |
| Homemaker | .52439 | .27498 | .00710 | -.04854 | 6.79535 | .09665 |
| Fx | .52949 | .28036 | .00538 | -.11286 | -.16270 | -.09063 |
| Wb | .53310 | .28420 | .00384 | -.01502 | -.22500 | -.12515 |
| Cs | .53555 | .28681 | .00262 | .13260 | .16680 | .09039 |
| Suicidal Fr. or Rel. | .53757 | .28898 | .00217 | .04205 | 1.82518 | .05154 |
| To | .53969 | .29126 | .00228 | -.04823 | -.22426 | -.13648 |
| Re | .54233 | .29412 | .00286 | .09609 | .18254 | .10392 |
| Yrs. of School | .54401 | .29595 | .00183 | .04572 | -.37260 | -.04542 |
| Ac | .54521 | .29725 | .00130 | .06528 | -.13674 | -.07838 |
| Psychotherapy | .54663 | .29880 | .00155 | -.10227 | -2.62968 | -.06509 |
| Sp | .54825 | .30058 | .00177 | .00569 | .06047 | .03853 |
| Married | .54911 | .30152 | .00095 | -.16858 | -2.70428 | -.07914 |
| Ai | .54989 | .30238 | .00086 | -.01701 | .11072 | .05823 |
| Student | .55052 | .30307 | .00069 | .12652 | -1.36147 | -.03997 |
| Do | .55118 | .30379 | .00073 | .01339 | -.08266 | -.05004 |
| Sy | .55138 | .30402 | .00023 | .13885 | .04396 | .02691 |
| (Constant) | | | | -8.49625 | | |

*p < .05

and 8 are the summary tables for TE-RI, TE-RII, and TE-RIII. The mean TE level for the entire population was 54.15 with a standard deviation of 17.07. These figures indicate that, in TE-RI, the variable "Children" is significantly and negatively correlated at the .05 level. This variable also exhibited a significant F- value on the first step of the regression. In Chapter II, it was indicated that variables such as this were scored one if the factor was present in the application information, and two if it was not. Thus, a negative correlation means that TE was negatively associated with not having children, or, more sensibly, that TE scores were positively associated with having children. There were no significant simple correlations in TE-RII, although the variable "Single" fell just short of significance at the .05 level. Since a score of two on this variable actually meant "not single," this correlation indicated a positive relationship between being or having been married and TE, of borderline significance. When all subjects were combined in TE-RIII, having children remained positively associated with TE, at the .05 level, and received the highest F- value. A new variable, CPI Femininity (Fe), was also positively associated with TE and made a significant unique contribution to the magnitude of the multiple correlation. "Single" was significant at the .05 level in this analysis, again indicating that having ever been married is positively associated with TE. The F- value was nonsignificant, however, because it did not contribute uniquely and significantly to the size of the multiple correlation, since it was highly correlated with "children," which had previously entered on the first step of the analysis.

As can be seen from Tables 9, 10, and 11, no significant simple correlations or F- values were found in Gen-RI, Gen-RII, or Gen-RIII.

TABLE 9

Gen-RI, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|----------|---------|
| Ai | .21968 | .04826 | .04826 | .21968 | .16247 | .30601 |
| So | .30852 | .09518 | .04692 | -.15010 | -.04397 | -.07968 |
| Student | .37631 | .14161 | .04643 | -.20950 | -1.73603 | -.16868 |
| Fe | .43121 | .18595 | .04434 | .16471 | .05994 | .11688 |
| Re | .47026 | .22115 | .03520 | .13288 | .18848 | .34934 |
| Fx | .49342 | .24346 | .02232 | .07156 | -.09406 | -.19453 |
| Ac | .51324 | .26342 | .01996 | -.08908 | -.39826 | -.76596 |
| Homemaker | .54111 | .29280 | .02938 | .08276 | 2.29154 | .10085 |
| Psychotherapy | .55352 | .30638 | .01358 | -.16892 | -3.10605 | -.23251 |
| Do | .56465 | .31883 | .01244 | .16239 | .14563 | .30580 |
| Sy | .57377 | .32921 | .01039 | .00889 | -.23103 | -.45827 |
| Ie | .58401 | .34107 | .01186 | .18348 | .22320 | .43485 |
| Children | .59303 | .35169 | .01062 | .15721 | -2.71571 | -.24790 |
| Sp | .60779 | .36941 | .01772 | .17900 | .16210 | .37817 |
| Married | .61856 | .38261 | .01321 | .03325 | 1.95382 | .18898 |
| Single | .63025 | .39722 | .01460 | -.07423 | 2.27434 | .22170 |
| Sc | .63621 | .40476 | .00754 | .03812 | .32319 | .56762 |
| Sa | .64785 | .41971 | .01495 | .15099 | .14781 | .29517 |
| Suicidal Fr. or Rel. | .65579 | .43006 | .01035 | .09417 | -2.46824 | -.23116 |
| Yrs. of School | .66601 | .44357 | .01351 | -.07974 | -.27586 | -.11286 |
| To | .67307 | .45302 | .00945 | .13075 | -.13295 | -.26797 |
| Gi | .67492 | .45551 | .00249 | -.02689 | -.09322 | -.14112 |
| Sex | .67624 | .45730 | .00179 | -.07274 | .70385 | .06719 |
| Religion | .67703 | .45837 | .00106 | .01397 | -.92077 | -.07385 |
| Age | .67818 | .45993 | .00156 | -.13975 | -.07407 | -.13013 |
| Py | .67887 | .46087 | .00093 | .09430 | -.02680 | -.04987 |
| Wb | .67954 | .46177 | .00090 | .02297 | -.04469 | -.08890 |
| Cs | .68064 | .46327 | .00150 | .10623 | .05173 | .08953 |
| (Constant) | | | | | 8.37408 | |

TABLE 10

Gen-RII, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|----------|---------|
| Homemaker | .24059 | .05788 | .05788 | -.24059 | -4.38255 | -.24772 |
| Married | .39828 | .15863 | .10075 | .21799 | 3.40386 | .36670 |
| Fe | .48222 | .23254 | .07391 | .22035 | .15579 | .32126 |
| Sa | .55160 | .30426 | .07173 | .22635 | .33987 | .74757 |
| Cm | .58260 | .33942 | .03516 | .07347 | .06188 | .28697 |
| Yrs. of School | .60533 | .36642 | .02700 | -.13016 | -1.17973 | -.51829 |
| Re | .63880 | .40806 | .04164 | .19805 | .18713 | .40008 |
| Sy | .65822 | .43325 | .02519 | -.05729 | -.26338 | -.60387 |
| Sex | .68408 | .46797 | .03472 | -.01184 | 5.96625 | .60536 |
| Ie | .70883 | .50244 | .03447 | .06850 | .45177 | .83713 |
| Pf | .73303 | .53733 | .03489 | -.07615 | -.25571 | -.48325 |
| Ai | .75444 | .56919 | .03185 | -.08045 | -.27079 | -.44266 |
| Age | .77967 | .60789 | .03871 | -.14844 | -.35099 | -.62154 |
| Single | .80070 | .64112 | .03323 | -.10249 | 3.49029 | .38128 |
| Suicidal Fr. or Rel. | .82058 | .67335 | .03223 | -.01848 | 3.47734 | .35978 |
| Religion | .83161 | .69157 | .01823 | -.13385 | -1.83811 | -.18225 |
| Do | .83969 | .70508 | .01350 | .05391 | -.24192 | .48088 |
| Cs | .85335 | .72820 | .02313 | .10998 | .31565 | .65756 |
| Wb | .87414 | .76411 | .03591 | -.11822 | -.33075 | -.59407 |
| Fx | .88071 | .77565 | .01154 | -.10775 | -.16684 | -.27493 |
| Sc | .88521 | .78359 | .00794 | -.18867 | .29719 | .52177 |
| Sp | .89128 | .79438 | .01079 | -.06880 | .13869 | .27007 |
| So | .89555 | .80202 | .00764 | .14183 | -.07299 | -.12455 |
| Psychotherapy | .90077 | .81139 | .00937 | -.13220 | -1.05378 | -.10448 |
| Children | .90265 | .81478 | .00339 | .00226 | -1.23285 | -.11897 |
| To | .90298 | .81537 | .00059 | -.12789 | -.02826 | -.06207 |
| Student | .90323 | .81582 | .00045 | -.04816 | .77661 | .08366 |
| Gi | .90379 | .81684 | .00102 | -.11937 | -.05538 | -.10388 |
| (Constant) | | | | | 22.50849 | |

TABLE 11

Gen-RIII, Summary Table

| Variable | Multi- ple R | R- Square | R-Sq Change | Simple r | B | Beta |
|----------------------|-----------------|--------------|----------------|-------------|----------|---------|
| Fe | .18244 | .03328 | .03328 | .18244 | .06258 | .12653 |
| Sa | .26785 | .07174 | .03846 | .17781 | .22265 | .46675 |
| Ie | .30121 | .09073 | .01898 | .14194 | .23976 | .45874 |
| Sy | .36333 | .13201 | .04128 | -.01853 | -.20487 | -.43273 |
| Yrs. of School | .38981 | .15195 | .01994 | -.09938 | -.32532 | -.13685 |
| Re | .41886 | .17544 | .02350 | .15883 | .16595 | .32605 |
| Psychotherapy | .43896 | .19268 | .01724 | -.14919 | -1.91877 | -.16392 |
| Ac | .46182 | .21327 | .02059 | -.01216 | -.16329 | -.32300 |
| Homemaker | .47643 | .22698 | .01371 | -.05655 | -3.09294 | -.15182 |
| Student | .48929 | .23941 | .01242 | -.14535 | -1.34029 | -.13580 |
| Sex | .50145 | .25145 | .01204 | -.04952 | 1.69760 | .16654 |
| Py | .51103 | .26116 | .00970 | .02904 | -.09675 | -.18253 |
| Sc | .52494 | .27557 | .01441 | -.04504 | .18365 | .32578 |
| Wb | .53565 | .28692 | .01135 | -.02630 | -.11278 | -.21648 |
| So | .54191 | .29367 | .00675 | -.04518 | -.05916 | -.10493 |
| Married | .54644 | .29860 | .00493 | .10653 | 2.18664 | .22084 |
| Cm | .55126 | .30388 | .00528 | .03750 | .02477 | .09978 |
| Sp | .55475 | .30775 | .00386 | .09610 | .07987 | .17562 |
| Religion | .55837 | .31178 | .00402 | -.04878 | -.97835 | -.08614 |
| Single | .56114 | .31487 | .00309 | -.08566 | 2.22425 | .22770 |
| Age | .56522 | .31947 | .00460 | -.14303 | -.12517 | -.22056 |
| Children | .56828 | .32294 | .00346 | .09672 | -1.12170 | -.16483 |
| Cs | .57045 | .32541 | .00247 | .10722 | .04325 | .08089 |
| Fx | .57380 | .32924 | .00383 | .01391 | -.03620 | -.06958 |
| Suicidal Fr. or Rel. | .57578 | .33153 | .00228 | .04927 | -.54295 | -.05291 |
| Gi | .57638 | .33221 | .00069 | -.06570 | .03022 | .05011 |
| Do | .57656 | .33242 | .00020 | .12035 | -.00983 | -.02054 |
| To | .57666 | .33253 | .00012 | .02800 | -.00939 | -.01973 |
| (Constant) | | | | | 14.01815 | |

However, the mean Genuineness level, 19.51, with a standard deviation of 5.24, suggests that the volunteers function fairly well in this regard.

In assessing the results of these regression analyses, it again appears that splitting the groups for cross validation purposes resulted in considerable random variation due to small sample sizes. Thus, it would seem to make some sense to regard TE-R1111, Gen-R1111, and perhaps IR-R1111, as initial validation analyses. The number of subjects in LS-DI and LS-DII would appear to have been adequate for the discovery of significant relationships between the predictors and the criterion, if they existed.

As for the relationships between the criterion variables, Table 12 indicates that the correlations are practically zero, except for the one between average levels of TE and Genuineness, which was positive and small, but significant ($r = .21, p < .05$). Thus, there was no basis for attempting to develop a unitary performance index based on all four criteria. However, a highly significant finding was obtained when TE and Genuineness scores were correlated on a call-by-call basis, using the 308 calls that were rated in order to obtain average TE and Genuineness levels. The correlation was .89, and was significant well beyond the .0001 level. This finding indicates that an extremely dependable positive relationship exists between the level of Genuineness exhibited in the first few minutes of a call and the level of TE attained during the entire call. Furthermore, the magnitude of this relationship is obscured when averaged TE and Genuineness levels are correlated. This phenomenon occurs because

TABLE 12

Correlations Between Criterion Variables

| | IR | TE | Gen |
|----|-----|------|------|
| LS | .07 | .04 | .08 |
| IR | | -.02 | .06 |
| TE | | | .21* |

*p < .05

there is considerable intraindividual variance in both TE and Genuineness, which is not evident when averaging is employed.

The final set of findings to be presented involves the performance of those 39 volunteers, who upon application to SCIS, had admitted to previous suicide attempts of their own. Cross tabulations of this variable indicated that nineteen, or just under 50%, began service. Of these, nine, or 23% of the total, stayed 100 days or more. These percentages are nearly identical to those of the entire volunteer population, presented in the beginning of this chapter. As for involvement, the mean Involvement Ratio for those who began service was 920.579, slightly below the mean for the entire group, which was 996.354. This difference was not statistically significant. One of the nineteen advanced to SCIS Care Team activity, indicating that the staff held her in high regard as a volunteer.

Six of these volunteers had accumulated enough tape-recorded calls to be included in the TE and Genuineness analyses. The means of both their average TE and Genuineness levels were higher than those of the other volunteers. For TE, the mean for previous attempters was 57.67, as opposed to 53.75 for the remainder of the group. As for Genuineness levels, the mean for previous attempters was 21.67, as opposed to 19.33 for the nonattempters. There was also less variability among the previous attempters on both of these variables. No statistical tests for the significance of these differences were performed, due to the small number of previous attempters. However, one must conclude from these data that there is no evidence that the previous attempters compare unfavorably with nonattempters, either in participation or competence in telephone crisis work. In fact, they may be slightly superior in the latter.

CHAPTER IV

DISCUSSION

It is obvious that the multivariate analyses failed to produce the desired results to identify significant relationships between the personality or personal history/demographic variables and the various performance criteria. There are two obvious explanations for the relative paucity of findings. The first is that the research design was deficient in one or more respects. The second is that significant relationships between these variables do not exist, when considered nomothetically. Since the discussion in the remainder of this chapter assumes that the findings of this investigation (or lack of them, in the multivariate analyses) are indeed valid, some comments concerning the design are in order.

There is no reason to believe that any problem existed with regard to the predictor variables. However, one might question the reliability or the validity of two of the performance criteria, namely TE and Genuineness. It is the opinion of the investigator, however, that these variables were reliable measures for the following reasons:

- (1) the interrater reliabilities were high for both variables; and,
- (2) the two variables were, on a call-by-call basis, highly correlated.

If there were, in fact, considerable random error in these ratings, the chances of obtaining a correlation of .89, using independent ratings, would be infinitesimally small.

As for validity, the TE Scale includes virtually all of the important principles of telephone crisis work that have appeared in the literature. The ultimate relationship of TE in the initial call to case outcome is difficult, if not impossible, to ascertain. The reason for this difficulty is that many other factors, including the subsequent case handling at the center and the transfer agency, influence long-term outcome. However, in terms of generally recommended principles for handling first calls, its content validity appears beyond question. The validity of the Genuineness Scale rests in the body of research reported by Truax and Carkhuff (1967), in which high levels were associated with constructive client change, in a variety of therapist-client dyads. Lister's scale is not identical with the one used in that research, but derives from the same concept and is moderately correlated with it.

The one shortcoming that is evident, however, involves the relatively small sample sizes in some of the multivariate analyses. It is believed that that the LS analyses employed adequate numbers of subjects, and they indicate that substantial relationships between the predictor variables and that particular criterion simply do not exist. The one suggestive finding that people with children tend to stay in service has some theoretical appeal, however. People with children would almost certainly not be "psychological virgins," in the sense in which Heilig et al. (1968) used the term. It may be that those who have weathered the life crises of marriage and child raising show a greater tendency to stay in telephone crisis work.

In the regression analyses, especially those involving TE and Genuineness, the sample sizes may have been too small for satisfactory cross validation, especially with so many predictor variables. The instability of the high multiple correlation values, along with the frequent sign changes in the simple correlation coefficients, suggests considerable random variation, probably most pronounced in the small TE-RII and Gen-RII samples. The regression runs with all subjects combined should thus be considered as initial validations.

Even so, the observed significant relationships are not numerous. Achievement via Conformance appears to be negatively related to the Involvement Ratio, suggesting that highly involved volunteers show a minimal tendency away from achievement and performance according to highly structured criteria. Though such people are seen as rebellious (Gough, 1968), they may be well equipped for the often ambiguously structured situations that crisis center volunteers must confront. The tentative relationships revealed in TE-RIII are of some theoretical interest. Variables concerning marriage and child raising seem to relate positively to TE levels, suggesting that the person who has experienced a considerable number of life crises not only stays in the program, but tends to handle calls better.

The findings just discussed, however, have not been cross validated, strictly speaking, nor do they point to substantial relationships. It is noteworthy, however, that the findings of McGee et al. (1967) were not replicated. In fact, the numerous significant correlations in IR-RI, even though they failed to retain their significance in IR-RIII, were all opposite in direction from what one might predict on the basis of their description of the best volunteers. If their description is

accurate, then there is no evidence that the best volunteers are staying with the program. When impartial TE and Genuineness ratings are the criteria of what is "best," there is no indication that the gregarious, socially facile, and self-accepting individuals identified by McGee et al. are, in fact, the best.

Similarly, some of the Heilig et al. (1968) assertions were not substantiated. There was no indication in the major analyses that individuals reporting a suicidal relative or close friend in the past perform less well than other volunteers. In addition, the separate study of volunteers who had previously attempted suicide indicated that they do not differ from their colleagues in either participation or performance, in terms of TE and Genuineness. As a matter of fact, the available evidence suggests that their performance may even be superior, on the average, perhaps because they take the caller more seriously and are not overly defensive about the topic of suicide. It is possible that they do things which call their fitness into question, as Heilig et al. imply, but these things are not in evidence in the criteria employed in this investigation.

It thus appears that there are no general indices, in terms of personal history/demographic and personality variables, that are of consistent utility in the selection of volunteers. It is possible that, had indicators of psychopathology been employed, some significant findings may have resulted, as in the case of length of service and involvement in the McGee et al. study. Certainly, one would want to screen out volunteers giving evidence of gross psychopathology, in either tests or interviews. Beyond this, however, there appears to be no utility in a priori screening on the basis of variables such as those employed as predictor variables in this investigation.

Other results of this investigation point to a viable alternative to a priori screening. It will be recalled that an extremely high correlation between Genuineness and TE was obtained, when these variables were examined on a call-by-call basis. Furthermore, there was considerable intraindividual variance with regard to these two variables. It is tempting to infer that a causal relationship exists. Specifically, the data suggest that, depending on the caller and the nature of his problem, the volunteer will react with varying degrees of defensiveness and discomfort, as indicated in the Genuineness rating. The amount of this defensiveness and discomfort, in turn, determines how the entire call will be handled, in terms of TE. Thus, if the volunteer is defensive and uncomfortable with a given caller and his problem area, he will fail to identify problems properly, fail to formulate an appropriate action plan, fail to secure the caller's agreement to the plan, and may even fail to secure the identity of the caller. This formulation is corroborated by anecdotal evidence. In one of the tapes used to train the Genuineness raters, a young man called SCIS, stating that he was unable to date and have sexual intercourse with girls, even though he boasted to the contrary. The volunteer, a spinsterish registered nurse, became very flustered and diverted the conversation as far as possible from the young man's initial complaint. This high level of volunteer defensiveness resulted in poor technical handling of the call.

Based on this finding, the following is proposed as an alternative to large scale a priori screening. After using clinical tests and interviews to screen out the grossly maladjusted, accept all applicants, provisionally. If there is a surplus of applicants, take those who

give evidence of success in handling their own life crises; these will probably be the ones who have been through experiences such as college, armed services, marriage, child raising, or, in general, the ones who have encountered life's problems. Once these volunteers complete training, systematically sample their performance through monitoring or, preferably, taping of calls. It would be then possible, either through the use of trained raters or experienced clinician-listeners, to ascertain those caller problem areas that generate defensiveness and poor performance for a given volunteer. Finally, through supervisory conferences, the volunteer would be able to understand the dynamics of his failures on the telephone, and, hopefully, begin to correct them through an understanding of his own feelings toward the callers' problems. In our sample, we discovered one volunteer who received the lowest possible Genuineness ratings on three separate calls, rated by three different raters. It is likely that such extensive defensiveness could not be overcome in supervisory conferences. Such individuals should probably be asked to resign.

This method requires both expensive staff time and tape recording. Very few centers have this type of "quality control" and, in most, the only assessment of a volunteer's performance comes from examination of routine forms and records, if anyone even attempts to evaluate it. The data obtained in this investigation indicate that volunteer performance is characterized by both inter- and intraindividual variation. The demands of good practice require that this performance be continually evaluated and enhanced in order to provide optimal crisis intervention services to our communities.

APPENDIX

The Technical Effectiveness and
Facilitative Genuineness Scales

THE TECHNICAL EFFECTIVENESS SCALE

| | Yes | No |
|--|-----|----|
| 1. CAN THE CALLER BE IMMEDIATELY RE-CONTACTED? In order to answer this question affirmatively, call must contain enough information to enable SCIS to return call and contact caller; or to go immediately to the caller. | | |
| 2. DID THE VOLUNTEER ASK FOR (OR OBTAIN) SPECIFIC INFORMATION REGARDING SIGNIFICANT OTHERS? A specific question dealing with possibility of roommates, parents, neighbors, friends, or relatives, etc., must occur in order to answer this question "yes." A general inquiry such as "do you have anybody you can talk to" will not be enough to qualify as a "yes" answer. | | |
| 3. WERE SPECIFIC PROBLEMS IDENTIFIED? A problem identified to which the SCIS can respond, even if it is not the focal problem, will qualify for a yes answer. | | |
| 4. DID THE VOLUNTEER COMMUNICATE THAT HE IS WILLING TO HELP. This question may be answered on the basis of both affect and/or content. | | |
| 5. DID THE VOLUNTEER DEVELOP A STRUCTURED PLAN OF ACTION OR HELP THE CALLER DEVELOP ONE? A structured plan of action must lead to some action or event that will involve the caller in an observable behavior. | | |
| 6. DID THE CALLER AGREE TO THE ACTION PLAN? A definite commitment must be obtained from the caller in order for this question to be answered "yes." | | |
| 7. WAS IT DETERMINED WHETHER OR NOT THIS WAS A SUICIDE CASE? Specific inquiry from C.A. mentioning "suicide" or "kill self" or spontaneous statement from caller. | | |

Yes No

8. (a) DID THE VOLUNTEER ASK ABOUT A SUICIDE PLAN?
 . . . OR
 (b) IF THE CALLER VOLUNTARILY DISCLOSED THE INFORMATION, DID THE VOLUNTEER INQUIRE FOR FURTHER DETAILS?

Answer either (a) or (b) above, but not both.

9. WAS IT DETERMINED IF PRIOR SUICIDE ATTEMPTS HAD BEEN MADE?

| Yes | No |
|-----|----|
| | |

A SCALE FOR THE MEASUREMENT OF FACILITATIVE GENUINENESS
James L. Lister

Definition

The counselor is genuine, authentic, and personally non-defensive in his relationship with the client. He speaks openly rather than defensively, spontaneously rather than cautiously or deliberately. The counselor relates as himself rather than as the embodiment of a professional role stereotype.

Essential elements of counselor response

The counselor communicates facilitative genuineness to the degree that the following elements are clearly evident in his responses to the client.

1. Undefensive Openness. The counselor is fully receptive to the communication of the client and exhibits no evidence of threat or discomfort in his relationship with the client.
2. Spontaneity. The counselor unhesitatingly responds to the client without censoring or editing his communication. The counselor's responses grow out of the immediacy of the relationship.
3. Honesty. The counselor's statements to the client are true. That is, the counselor communicates his honest, personal perceptions. The client is not "put on" and the counselor makes no effort to be obscure about the nature of his efforts to help the client; rather, he makes an open effort to "let the client in on" his hypotheses and procedures.
4. Relaxed Voice. The counselor's voice is not strained or "false." There is high congruence between the counselor's voice and the content of his communication.
5. Idiosyncratic Style. The counselor's "style" of interaction, while perhaps identifiably belonging to a particular "school" or orientation, is indelibly stamped with the counselor's own personality. Thus, the counselor speaks in a way that is his rather than as if the responses came from a textbook.

Using the Scale

This preliminary version of the scale for measuring facilitative genuineness is designed primarily for use with recorded samples of counselor-client interaction, either individual or group. While this scale, like its predecessors developed by Truax (1961) and Carkhuff (1969) can possibly be used reliably with written protocols of counseling interaction or with written counselor responses to simulated client statements, many of the subtle nuances present in audio and/or video recordings may well be lost, most notably the components which are evidenced through counselor voice qualities.

The foregoing elements of facilitative genuineness are to be scored separately based on the system outlined below. The weighting

system is designed to reflect the relative importance of each of the components in comprising the more-or-less unitary construct, facilitative genuineness. The scoring weights follow.

| <u>Element of Facilitative Genuineness</u> | <u>Maximum Score Value</u> |
|--|----------------------------|
| 1. Undefensive Openness | 10 points |
| 2. Spontaneity | 5 points |
| 3. Honesty | 5 points |
| 4. Relaxed Voice | 5 points |
| 5. Idiosyncratic Style | 3 points |
| | <u>28 points</u> |

By answering each of the following questions about a sample of counselor-client interaction, a score is obtained for each of the five components and a total score representing the sum of the component scores.

Undefensive Openness

1. To what extent is the counselor open and undefensive in his relationship with the client?

- | | |
|---|---------------|
| a. To a great extent. The counselor's psychological security and comfort in the relationship are independent of the client's communications. The counselor has no need to be "on guard," careful, or protective of himself or of his professional role or status. | 10 points |
| b. There is some evidence that the counselor, while generally open and receptive to the client, is insecure and defensive in certain respects. | 7 to 9 points |
| c. The counselor's openness or undefensive receptivity is narrowly restricted to certain aspects of the client's communication. | 4 to 6 points |
| d. The counselor is defensive and insecure in the relationship, but makes no explicit effort to deny his discomfort. | 1 to 3 points |
| e. The counselor gives explicit evidence of insecurity in the relationship, but attempts to hide his discomfort from the client. He "protests" too much. | 0 points |

Scoring note: If this element is scored 0, disregard all remaining elements and give 0 as the total rating for the sample.

Spontaneity

2. To what extent does the counselor respond spontaneously in the relationship?

- | | |
|---|---------------|
| a. There is ample evidence that the counselor's responses are immediate and uncensored. While the counselor may at times hesitate in responding to the client, he does so because his perceptions or feelings are unclear, but not because he knows what he wants to say, but is groping for the best way to phrase it. | 4 to 5 points |
| b. The counselor's spontaneity is limited to certain aspects of the relationship, usually tangential, superficial areas. Also, the counselor may exhibit no spontaneity and make no effort to do so. | 1 to 3 points |
| c. The counselor not only lacks spontaneity, but attempts to fake it. | 0 points |

Honesty

3. To what extent does the counselor honestly communicate his personal, subjective perceptions?

- | | |
|---|---------------|
| a. There is ample evidence that the counselor's responses are an expression of his personal conviction. In short, the counselor believes everything he says to the client. | 4 to 5 points |
| b. There is some evidence that, while generally honest, the counselor "hedges" a bit, particularly in those areas where he feels his honest perceptions would hurt the client, or impair the relationship. | 1 to 3 points |
| c. There is explicit evidence that the counselor makes numerous statements which contradict his perceptions. The counselor may be telling the client what he thinks the client expects of him; he may attempt to camouflage the real purpose of his questions; or he may assume a role which he feels necessary to elicit certain feelings from the client. | 0 points |

Relaxed Voice

4. To what extent does the counselor's voice indicate freedom from discomfort in the relationship and a consistency between what the counselor perceives and what he says?

- | | | |
|----|--|---------------|
| a. | To a great extent. The counselor's voice appears uniformly consistent with his feelings and perception. | 4 to 5 points |
| b. | There is evidence of some inconsistency between the counselor's voice and feelings, but the counselor appears generally congruent in most of his verbalizations. | 1 to 3 points |
| c. | The counselor's voice is unmistakably incongruent with his inner experience. Tension or discomfort is present to a marked degree. | 0 points |

Idiosyncratic Style

5. To what extent is the counselor's verbal response style of interaction free from stereotyped, formal, or "textbook" phrases?

- | | | |
|----|---|---------------|
| a. | Completely. The counselor's style is unmistakably personal. The counselor's theory or techniques, which may be identifiable, are essentially independent of the counselor's verbal style. The counselor's words and phrases are uniquely his own. | 3 points |
| b. | While the counselor's style is to some degree formal or stereotyped, the counselor's personal style is present to a significant degree. | 1 to 2 points |
| c. | There is no evidence of the person of the counselor. His style is a studied replica of the "expert." His style, while generally appropriate, clearly does not fit <u>him</u> . | 0 points |

August 27, 1970

REFERENCES

- Ansel, E. L. A study of attitudes toward suicide attempters. Paper read at Southeastern Psychological Association, 1969.
- Ansel, E. L., & McGee, R. K. Attitudes toward suicide attempters. Bulletin of Suicidology, 1971, No. 8, 22-26.
- Arnhoff, F. N., Rubinstein, E. A., & Speisman, J. C. Manpower for mental health. Chicago: Aldine, 1969.
- Caplan, G. Principles of preventive psychiatry. New York: Basic Books, 1964.
- Carkhuff, R. R., & Berenson, B. G. Beyond counseling and therapy. New York: Holt, Rinehart, & Winston, 1967.
- Dahlstrom, W. B., & Welsh, G. S. An MMPI handbook. Minneapolis: University of Minnesota Press, 1960.
- Dixon, W. J. (Ed.) Biomedical computer programs. University of California publications in automatic computations No. 2. Berkeley: University of California Press, 1967.
- Dublin, L. I. Suicide prevention. In E. S. Shneidman (Ed.), On the nature of suicide. San Francisco: Jossey-Bass, 1969.
- Ewalt, Patricia G. (Ed.) Mental health volunteers. Springfield, Ill.: Chas. C. Thomas, 1967.
- Fowler, D., & McGee, R. K. Assessing the performance of telephone crisis workers: The development of a technical effectiveness scale. Bulletin of Suicidology, 1972, in press.
- Gough, H. G. California psychological inventory: Manual. Palo Alto: Consulting Psychologists Press, 1957.
- Gough, H. G. An interpreter's syllabus for the California Psychological Inventory. In P. McReynolds (Ed.), Advances in psychological assessment, Vol. I. Palo Alto, Calif.: Science and Behavior Books, 1968.
- Guerney, B. G., Jr. (Ed.) Psychotherapeutic agents: New roles for non-professionals, parents, and teachers. New York: Holt, Rinehart, & Winston, 1969.
- Guildord, J. P. Psychometric methods. New York: McGraw-Hill, 1954.

- Heilig, S. M., Farberow, N. L., Litman, R. E., & Shneidman, E. S. The role of nonprofessional volunteers in a suicide prevention center. Community Mental Health Journal, 1968, 4, 287-295.
- Jennings, B., & Ansel, E. L. The personal characteristics and attitudes of crisis intervention workers. Paper read at American Association of Suicidology, 1971.
- Kirkpatrick, P., & Michael, S. Study methods, mental health ratings. In L. Srole et al. (Eds.), Mental health in the metropolis: The mid-town Manhattan study, Vol. I. New York: McGraw-Hill, 1962.
- Knickerbocker, D., & Fowler, D. E. A system for evaluating the performance of crisis workers. Paper read at American Association of Suicidology, 1971.
- McGee, R. K. U. S. suicide prevention center survey. University of Florida, 1969 (unpublished mimeo).
- McGee, R. K., Pennington, Jean C., & Hegert, T. Criteria for selecting and evaluating non-professional crisis workers in a suicide prevention center. University of Florida, 1967 (unpublished mimeo).
- McGee, R. K., Knickerbocker, D. A., Fowler, D. E., Jennings, B., Ansel, E. L., Zelenka, M. H., & Marcus, Susan. Evaluation of crisis intervention programs and personnel: A summary and critique. Journal of Life Threatening Behaviors, 1972, in press.
- Nie, N. H., Bent, D. H., & Hull, C. H. Statistical package for the social sciences. New York: McGraw-Hill, 1970.
- Resnik, H. L. P. A community antisuicide organization: The FRIENDS of Dade County, Florida. In H. L. P. Resnik (Ed.), Suicidal behaviors: Diagnosis and management. Boston: Little, Brown, & Co., 1968, 418-441.
- Resnik, H. L. P. A community antisuicidal organization. Current psychiatric therapies, Vol. IV. New York: Grune & Stratton, 1964.
- Rioch, Margaret J., Elkes, Cherman, Flint, A. A., Usdansky, B. S., Newman, Ruth G., & Sieber, E. National Institute of Mental Health pilot study in training mental health counselors. American Journal of Orthopsychiatry, 1963, 33, 678-689.
- Truax, C. B., & Carkhuff, R. R. Toward effective counseling and psychotherapy: Training and practice. Chicago: Aldine, 1967.
- Umbarger, C. C., Dalsimer, J. S., Morrison, A. P., & Breggin, P. R. College students in a mental hospital. New York: Grune & Stratton, 1962.

BIOGRAPHICAL SKETCH

Edward Leslie Ansel was born in Baltimore, Maryland, on August 12, 1944. Educated in the Baltimore public school system, he graduated from the Baltimore Polytechnic Institute in June, 1961. Before coming to the University of Florida, he attended Loyola College, Loyola Evening College, and the University of Maryland, receiving the degree of Bachelor of Arts, with high honors, from the latter in June, 1967. While an undergraduate, he was elected to Phi Beta Kappa, Phi Kappa Phi, and Psi Chi. In September, 1967, he entered the Graduate School of the University of Florida and was awarded the degree of Master of Arts, in psychology, in December of the following year. While completing the requirements for the degree of Doctor of Philosophy, Mr. Ansel worked as a psychology trainee at the Gainesville Veterans Administration Hospital and as a staff member of the Mental Health Service of the University of Florida Student Health Services. After graduation, he plans to pursue a career in clinical and community psychology.

Edward Leslie Ansel is married to the former Susan Dee Goodman and is the father of one daughter, Laurel Tracy.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Richard K. McGee, Chairman
Associate Professor of Psychology

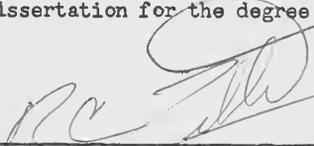
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Warren J. Rice
Assistant Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Vernon D. Van De Riet
Associate Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Robert C. Ziller
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Betty L. Siegel

Betty L. Siegel
Associate Professor, Foundations of
Education

This dissertation was submitted to the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

June, 1972

A. G. Smith

Dean, Graduate School