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ABSTRACT

An investigation into the characteristics of individuals who participate, and those who do not participate, in group counseling activities was conducted. The purpose of the study was to study the possible significance of sibling position as a behavioral determinant in an adult's life with respect to participation. A survey questionnaire was mailed to 600 graduate students; 314 sent usable responses. The questionnaire contained eight items. Answers were analyzed. It was found that sibling position does have some influence over an individual's adult life. The following conclusions were drawn: (1) Only children participated in more group counseling activities than did other sibling positions; (2) Males did participate in more group counseling activities than did females; (3) Individuals in the 45- to 49-year-old category engaged in more group counseling activities than those in the 20-29-year-old groups; (4) Education majors participate in more group counseling activities than other majors; (5) Individuals who continued their schooling without a break participated in more counseling than individuals with interruptions in their schooling. (Author/CK)

THE FLORIDA STATE UNIVERSITY

COLLEGE OF EDUCATION

THE SIGNIFICANCE OF SIBLING POSITION AND THE FREQUENCY OF PARTICIPATION BY ADULTS IN GROUP COUNSELING ACTIVITIES

By
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I. INTRODUCTION

There is an ever increasing awareness and interest in group oriented approaches to organizational and individual change today. In a little over twenty-five years the utilization of group methods to encourage change have spread into businesses, governmental agencies, colleges and universities, and into community life. Special agencies, cloistered retreats, and change agents have sprung forth to help meet the burgeoning demand for group process activities. Behavioral scientists, educators, and other practitioners have generated numero articles dealing with organizational change, individual change, group dynamics, and group counseling. A variety of both theoretical and practical approaches to group process activities have been postulated and include: the socioteleological, behavioral, transactional, group-centered, and the T-Group model devised by the National Training Laboratories, to name only a few.[1]

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[1]Don C. Dinkmeyer and James J. Muro, Group Counseling: Theory and Practice (Itasca, Illinois: F. E. Peacock Publishers, Inc., 1971), pp. 49-69.

Even considering the growing popularity and already extant body of literature, a great deal of both theoretical and empirical investigation still needs to be done in the general field of group processes.[1] Since an investigation into the total field of group processes is unmanageable, it is necessary to work within a conceptual framework which lends itself to the scope of this study. An efficacious way to conceptualize group approaches to behavior change is to envision an inverted pyramid with group processes at the top, organizational change in the middle, individual change at the bottom, and group dynamics interspersed throughout as the linking mechanism which serves to tie the components together. The basic unit within this paradigm, then, is individual change. An investigation focusing on individual change appears to be legitimate, since the individual is viewed as the crucial variable in organizational change, and since an investigation focusing on the individual is considerably more manageable than a study of the total field of group phenomena.

Group oriented approaches to individual change are relatively new, as observes Carl Rogers writing on the development of the T-Group:

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[1] C. Seashore, "What is Sensitivity Training?" in R. T. Golembiewski and A. Blumberg, eds., Sensitivity Training and the Laboratory Approach (Itasca, Illinois: F. E. Peacock Publishers, Inc., 1970), pp. 14-17.

> It is a potent new cultural development, and exciting social invention, a truly grass roots movement that has grown out of personal, organizational and social need. Unrecognized by any major university, without backing from foundations or government agencies until the last few years, it has grown until it has permeated every part of the country and almost every social institution.[1]

Numerous investigations into the effectiveness of group approaches to behavior change have produced conflicting and inconclusive results and vary from one study to another.[2] But despite the conflicting reports on the outcomes of group approaches to behavior change, and occasional reports of serious damage to participants,[3] these approaches are fairly well entrenched as legitimate tools within the helping relationship.

The educator, administrator, teacher, or counselor, then, is presented with a morass of contradictions through which he must progress in any attempt to determine the appropriateness of group oriented behavioral change activities for his program or setting. A major consideration for the educator is: Would adults in his program participate in group activities designed to produce or allow for personal growth and change and, would such activities be of benefit

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[1]Carl Rogers, "The T-Group Comes of Ag " Psychology Today, Vol. 3 (1969), p. 27.

[2]Dinkmeyer and Muro, op. cit., pp. 303-322.

[3]Rogers, op. cit., p. 60.

to them? At the functional level, the educator has to know which of his programs and activities would be utilized by adult students; and which programs or activities would not be utilized to any significant extent. With scarce resources, programs and activities not serving large numbers of students are all too often discontinued regardless of their merit.

Statement of the Problem

Not all individuals choose, when provided the opportunity to do so, to engage in group oriented activities which are designed to result in behavior change. Some adults may engage in numerous group oriented change activities, while other adults may participate in a limited number of such activities. Various investigators have examined some of the variables felt to be crucial in motivating the individual to engage in some form of adult educational activity,[1] but little concrete data is known about the participant from the point of view of frequency or magnitude of participation. The personality of the adult learner is a significant variable in influencing whether or not he engages in any type of personal growth activity. The degree to which, if at all, personality as a whole, or selected personality variables or clusters of

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[1]John W. C. Johnstone and Ramon J Rivera, Volunteers for Learning (Chicago: Aldine Publishing Company, 1965).

variables, influences frequency of participation in group oriented behavioral change activities is not clear in the literature.

Virtually all adult educational programs require voluntary participation and without such participation a program is in existence in name only.

Publications by Johnstone, and Johnstone and Rivera suggest that over 25 million adults participate in some type of educational activity and that vocational courses or activities are of primary interest to adults.[1] Johnstone and Rivera's study also suggests that many more adults indicate an interest in pursuing educational activities than the number that actually participate.[2] While large numbers of adults participate in educational activities, even greater numbers do not. Of those who do participate many drop out at various points throughout the educational process. Studies by Zahn and Phillips, Ewigleben, and Scharles, all suggest that the personality of the adult learner is crucial when viewed in terms of participation.[3]

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[1]John W. C Johnstone, "The Educational Pursuits of American Adults," Adult Education, Vol. 13, No. 4 (Summer, 1963), pp. 217-222; Johnstone and Rivera, op. cit.

[2]Ibid.

[3]Jane Zahn and Laura Phillips, "A Study of the Drop Out in University Adult Education," Adult Education, Vol. 11,

Unfortunately the concept of personality is as illusive and unmanageable as the concept of group phenomena. Hall and Lindzey, writing on the study of personality, state that " no substantive definition of personality can be applied with any generality."[1] These two authors continue to state that personality is essentially whatever a particular theorist chooses to call it.

An investigation into the personality variables of adults would in itself constitute am ambitious undertaking without any reference to participation in a group growth activity.

Purpose of the Study

This study had three foci: the first involved the frequency of participation in group counseling activities by graduate students at Florida State University; the second involved the identification of sibling positions within the

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(Summer, 1961), pp. 230-234; Robert L. Ewigleben, "The Identification and Analysis of the Factors Contributing to the Drop Out Rate Among Participants in Classes of the Lansing Adult School Program" (unpublished Ed.D. dissertation, Michigan State University, 1959); Henry Godfrey Scharles, Jr., "The Relationship of Selected Personality Needs to Participation, Drop-Out, and Achievement Among Adult Learners" (unpublished Ph.D. dissertation, Florida State University, 1966).

[1]Calvin S. Hall and Gardner Lindzey, Theories of Personality (2d ed., New York: John Wiley and Sons, Inc., 1970), p. 9.

family constellation of graduate students at Florida State University. The third involved the relationship between the first two foci.

There are numerous theories and models of personality which could have been studied and examined as possible determinants in influencing the frequency of participation in group growth activities. A model of personality developed by Walter Toman was selected since it appeared to provide an excellent means of managing components of a group dynamics oriented system with relevance to a study involving frequency of participation in a group activity.

The model of personality proposed by Walter Toman is based on an individual's birth order or placement within his family constellation. This approach relies heavily upon socially learned determinants of personality which stem from a group situation, the family.[1]

Since the family of an individual is viewed as a significant determinant in the development of his personality, this investigation sought to determine whether or not different placements within a family constellation related to group experience later in life, specifically voluntary participation in a personal growth group experience.

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[1]Walter Toman, "Never Mind Your Horoscope, Birth Order Rules All," Psychology Today, Vol. 4 (1970), pp. 45-49, 68-69.

In addition to the above, this study was undertaken in order to help fill in gaps in the literature which dealt with who participates in group activities when provided the opportunity, and equally important, to help identify those individuals who do not generally participate in such activities. Moreover, it was thought that if family constellations were significant determinants in personality development, additional investigations into the possible consequences of particular sibling combinations in influencing adult life should be undertaken.

Definition of Terms

In order to help reduce ambiguity, the following regularly used terms were consistently used as follows, unless specifically noted otherwise:

Adult: anyone who is eighteen (18) years of age or older; all graduate students are defined as adults.

Family Constellation: the number, ages, and sex of siblings in relation to a particular subject.

Group Counseling: a professionally led interpersonal process which " focuses on thoughts, feelings, attitudes, values, purposes, behavior, and goals of the individual and the total group."[1]

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[1]Dinkmeyer and Muro, op. cit., pp. 1-2.

Group Dynamics: " the interacting forces within groups as they operate to achieve objectives."[1]

Sensitivity Training: a small group learning experience where participants learn " through analysis of their own experiences, including feelings, reactions, perceptions, and behavior;"[2] used synonomously with group counseling in this study.

Questions and Hypotheses

A review of literature contained in the next chapter indicates a lack of substantive empirical data about participation in group counseling activities by adults. This investigation has been designed to inquire into one potentially relevant aspect of an individual's development, his sibling position within his family.

One general question preceded all other questions and hypotheses. Specifically, does an individual's sibling position affect his adult behavior? A reduction of this question results in three more:

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[1]B. Shertzer and S. C. Stone, Fundamentals of Guidance (Boston: Houghton Mifflin Company, 1966), p. 169.

[2]Robert T. Golembiewski and Arthur Blumberg, eds., Sensitivity Training and the Laboratory Approach (Itasca, Illinois: F. E. Peacock Publishers, Inc., 1970), p. 14.

1. Does an individual's sibling position affect his frequency of participation in group counseling activities?

2. Does sibling position affect males and females differently with regards to participation in group counseling activities?

3. Does an individual's sibling position influence his selection of a college or school to register in?

These questions will be explored by testing the following ten hypotheses, stated in the null form:

Hypothesis I. There is no significant difference in the distribution of types of sibling positions between individuals enrolled in different colleges, schools, or general academic areas.

Hypothesis II. There is no significant difference between different sibling positions and frequency of participation in group counseling activities.

Hypothesis III. There is no significant difference in the frequency of participation in group counseling activities by middle children in comparison to other sibling positions.

Hypothesis IV. There is no significant difference in the frequency of participation in group counseling activities by only children in comparison to other sibling positions.

Hypothesis V. There is no significant difference in the frequency of participation in group counseling activities between individuals in older sibling positions compared to individuals in younger sibling positions.

Hypothesis VI. There is no significant difference in the frequency of participation in group counseling activities between sibling groups of different sizes.

Hypothesis VII. There is no significant difference in the frequency of participation in group counseling activities between males and females.

Hypothesis VIII. There is no significant difference in the frequency of participation in group counseling activities between individual subjects of different age categories.

Hypothesis IX. There is no significant difference in the frequency of participation in group counseling activities between individuals enrolled in different colleges, schools, or general academic areas.

Hypothesis X. There is no significant difference in the frequency of participation in group counseling activities between individuals with continuous college enrollment and individuals with an interruption in their enrollment in going from undergraduate to graduate school.

II. REVIEW OF LITERATURE

Introduction

An examination of the literature reveals that there are no investigations dealing directly with the role of family constellation or sibling position as a precursor to involvement in group counseling activities. Because of this lack of directly relevant investigations, studies which are indirectly relevant will necessarily be presented. These investigations are divided into three general categories: those dealing with adult participation in educational activities, those dealing with the selection and screening or members for group counseling activities, and studies investigating the role of family constellation and sibling position as a behavioral determinant.

Adult Participation in Educational Activities

An extensive investigation by Johnstone and Rivera indicates that some 25 million adult Americans participate in some form of adult education. A majority of participants

are engaged in vocationally oriented courses or indicate vocationally relevant reasons for participation.[1]

Cyril O. Houle suggests another reason adults may participate in an educational activity:

> Counselors at adult educational institutions are often consulted by those who wish to escape from their present employment and seek to do so by means of education.[2]

The reasons adult students drop out of adult educational programs and activities are probably as important as why they participate in the first place. James T. Carey, writing in a monograph, reports two broad reasons for adult students dropping out of an evening college. Based on self report data, the reasons are categorized as being related to "self," or as being related to the college. Actual personality variables are not dealt with.[3] In an investigation by Scharles, mentioned previously, personality factors of drop outs and non-drop outs were analyzed. He found significant differences in the personality needs of the two groups, with additional differences between the sexes. Based on test

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[1]Johnstone and Rivera, op. cit.

[2]Cyril O. Houle, The Inquiring Mind (Madison: University of Wisconsin Press, 1963), p. 75.

[3]James T. Carey, Why Students Drop Out: A Study of Evening College Student Motivations (Chicago: Center for the Study of Liberal Education for Adults, 195[illegible]).

results from the Edwards Personal Preference Schedule, non-drop out males scored higher in the need for affiliation and lower in the need for autonomy than did male drop outs. Females who remained in the program scored higher in the need for abasement and lower in the need for achievement than did female drop outs.[1]

Ted Landsman, writing on self-concept and learning, relevant to unsatisfactory educational experiences, such as failure, suggests that this " develops feelings of self-worthlessness and continues the vicious circle of avoidance of learning."[2]

In an investigation by Harold Savides of factors relevant to participation and withdrawal of evening adult students, it was found that thirty-eight percent of the drop outs had some negative home factors while only ten percent of those individuals completing the program had similar home circumstances.[3]

A study by Raymond P. Carson indicates the significance of family related variables in influencing participation

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[1]Scharles, op. cit.

[2]Ted Landsman, "The Role of Self-Concept in Learning Situations," High School Journal, Vol. 45 (April 1962), p. 294.

[3]Harold A Savides, "An Identification of Some Characteristics of Students who Complete and Students Who Drop Out of an Evening Technical Curriculum" (unpublished Ph.D. dissertation, University of Wisconsin, 1960).

in adult education activities. This investigation concentrated on young adult males and noted that those individuals coming from apparently middle class families with only a few siblings tended to continue their schooling regardless of their average or above average intellectual capabilities. There was a tendency for individuals from large, lower class families not to continue their educational activities, even when they were of exceptional mental ability.[1] This would appear to indicate that both social class and family size influence participation in educational activities.

Selection of Members for Group Counseling

Any investigation into the frequency of participation in group counseling should take into consideration the selection and screening of members for inclusion in such an activity. Screening for membership in a counseling group is of two basic types: self-selection by the adult and, selection by a group counselor or by the group itself. The dependent variable in this investigation addresses itself to self-selection, as a function of sibling position, so that a review of literature relevant to counselor or group members screening is necessary.

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[1]Raymond P. Carson, "Factors Related to the Participation of Selected Young Adult Males in Continuing Education" (unpublished Ed.D. dissertation, Florida State University, 1965).

Ohlsen states that members should be selected for inclusion in a group on the basis of "appropriateness of the group for them."[1] Mahler and Caldwell suggest that members should have commonality of problems and concerns.[2] In a later work, Mahler emphasizes a balancing of personality factors, age, sex, and prior acquaintance of prospective group members.[3]

George S. Odiorne, writing in Golembiewski and Blumberg, comments on selection criteria for admission to a sensitivity training group:

> The more serious defects of sensitivity training relate to admissions standards. The present condition is such that anybody with the registration fee can attend.[4]

Hinkley and Herman, and Bach suggest that psychotics and prepsychotics should not be included in a group counseling

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[1]M. M. Ohlsen, Guidance Services in the Modern School (New York: Harcourt Brace Jovanovich, Inc., 1964).

[2]C. A. Mahler and, E. Caldwell, Group Counseling in Secondary Schools (Chicago: Science Research Associates, 1961).

[3]C. A. Mahler, Group Counseling in the Schools (Boston: Houghton Mifflin Company, 1969).

[4]G. S. Odiorne, "The Trouble With Sensitivity Training," in R. T. Golembiewski and A. Blumberg eds., Sensitivity Training and the Laboratory Approach (Itasca, Illinois: F. E. Peacock Publishers, Inc., 1970), p. 282.

activity.[1] L. R. Wolberg observes that psychopaths, paranoids, depressives, homosexuals, and acting-out individuals should be screened out of group activities.[2] Warters adds the "chronic monopolist" as someone who should be excluded from group counseling.[3] Hill suggests that individuals who cannot benefit from a group experience or who are constantly disruptive should be excluded.[4]

Views expressed by William Schutz,[5] and by Bennis and Shepard,[6] differ from those of Ohlsen,[7] and Mahler,[8] and from those of Mahler and Caldwell.[9] Schutz and Bennis

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[1]R. G. Hinkley and, L. Herman, Group Treatment in Psychotherapy (Minneapolis: University of Minnesota Press, 1951); G. R. Bach, Intensive Group Psychotherapy (New York: Ronald Press, 1954).

[2]L. R. Wolberg, The Technique of Psychotherapy (New York: Grune and Stratton, Inc., 1954).

[3]J. Warters, Group Guidance: Principles and Practices (New York: McGraw-Hill Book Company, 1960).

[4]W. F. Hill, Group-Counseling Training Syllabus (Los Angeles: University of Southern California, Youth Studies Center, 1965).

[5]William C. Schutz, Joy: Expanding Human Awareness (New York: Grove Press, Inc., 1969).

[6]W. G. Bennis, and H. A. Shepard, "A Theory of Group Development," Human Relations, Vol 9 (1956), pp. 415-437.

[7]Ohlsen, op. cit. [8]Mahler, op. cit.

[9]Mahler and Caldwell, op. cit.

and Shepard stress the value of heterogeneous group composition rather than homogenity and commonality of problems. This view apparently stems from a recognition of the value of having a multiplicity of roles available for modeling by group members.

The concept of "role" is important and as Glanz and Hayes note in paraphrasing Bales[1]: "The understanding of group behavior is facilitated by viewing each member of the group as playing certain fairly well-defined roles."[2] Glanz and Hayes continue and restate a view held by Hilgard,[3] relevant to the concept of social role: " the person learns to act in accordance with the roles which are assigned in the environment."[4]

There is no commonality in the literature in regards to screening procedures for inclusion in a group counseling activity. A majority of the literature cited, though, is in favor of screening out those individuals generally regarded as seriously disturbed and those who are disruptive. Some

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[1]R. F. Bales, Interaction Process Analysis (Reading, Massachusetts: Addison-Wesley Publishing Company, Inc., 1951).

[2]E. C. Glanz and, R. W. Hayes, Groups in Guidance (2d ed.; Boston: Allyn and Bacon, Inc., 1967), p. 106.

[3]E. R. Hilgard, Introduction to Psychology (2d ed.; New York: Harcourt, Brace and Company, 1957).

[4]Glanz and Hayes, op. cit., p. 107.

writers advocate homogenity in group composition and in commonality of problem, while others emphasize a more diverse group composition for heterogenous role modeling. It is probable that some type of either formal or informal screening of prospective group members does occur, regardless of the over all group composition.

Family Constellation as a Behavioral Determinant

Walter Toman credits Alfred Adler with probably being " the first to appreciate family constellation as a basic personality determinant ."[1]

Hall and Lindzey, writing on Adler's concept of social interest, state that:

> The person is embedded in a social context from the first day of life. Co-operation manifests itself in the relationship between the infant and the mother, and henceforth the person is continuously involved in a network of interpersonal relations .[2]

Dreikurs and Sonstegard observe that all behaviors evidenced by the individual are socially significant and must be understood in view of the social context.[3]

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[1]Walter Toman, "Family Constellation as a Basic Personality Determinant," Journal of Individual Psychology, Vol. 15 (1959), p. 199.

[2]Hall and Lindzey, op. cit., p. 125.

[3]R. Dreikurs and, M. Sonstegard, "Rationale of Group Counseling," in D. C. Dinkmeyer, ed., Guidance and Counseling

Writing on the origin of an individual's major or primary personality characteristics, Toman states:

> The theory that I have developed depends solely on the combinations of only two things: the sexes and age ranks of all the persons in his immediate family.[1]

This conceptual view or model by Toman is in part derived from his contention that while parents are important, siblings are more important. Toman observes:

> Siblings are an integral part of one's early family life and hence must have an impact on the way one learns to relate to others.[2]

An integral contributor to the construction of the overall research design for this study, and the subsequent development of hypotheses, rests in a central tenet in Toman's work and is termed the duplication theorem. This essentially states that:

> The kinds of persons one chooses as spouse, friends, partner and such will be determined partially by the kinds of persons he has lived with longest and most intimately. New relationships, to some degree, 'duplicate' the old ones. Generally, the more complete the duplication, the greater the chance that the relationship will last and be happy.[3]

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in the Elementary School: Readings in Theory and Practice (New York: Holt, Rinehart and Winston, Inc., 1968).

[1]Walter Toman, "Never Mind Your Horoscope, Birth Order Rules All," Psychology Today, Vol. 4 (1970), p. 45.

[2]Ibid.

[3]Ibid.

In a 1959 publication Toman advanced his model of personality development and tested its significance in determining marital happiness, selection of friends, and a specific vocational choice. The hypotheses put forth by Toman were substantiated. Specifically, it was found that those marriages which essentially duplicated or closely approximated the original family constellation tended to have greater incidence of happiness and success. The selection of friends and one type of vocation were also shown to be significantly related to the individual's family constellation.[1]

The primary construct in Toman's model and in the investigation referred to above is the duplication theorem. This theorem is for the most part a historical reenactment of the individual's initial primary group experience. As Toman notes in discussing his theorem:

> This thesis can be derived from psychoanalytic theory, general learning theory, and common sense. Siblings are a person's first peers and they are around during most of all of one's formative years. What one learns from them and the way one learns to deal with them will influence his choice of future relationships.[2]

Other investigators have studed sibling position and related variables and have generally arrived at findings compatible with the views of Toman,

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[1]Walter Toman, "Family Constellation as a Basic Personality Determinant," Journal of Individual Psychology, Vol. 15 (1959), pp. 199-211.

[2]Toman, op. cit.

One such study, by Schachter, utilized a sociometric device and found that first-born siblings chose fewer individuals for friends than did later-born siblings types.[1] In an earlier study of fear and affiliation, Schachter found that female first-born and only siblings evidenced a greater tendency to affiliate when afraid than did other female sibling types.[2] Rosenfeld's study, though, was unable to show any significant difference in the need for affiliation between first-born and later-born sibling position types.[3] Gerard and Rabbie essentially substantiated Schachter's 1959 study with females, but found an inverse relationship with males.[4]

Altus found a greater incidence of first-born and only sibling type individuals among college students.[5] Warren

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[1]S. Schachter, "Birth Order and Sociometric Choice," Journal of Abnormal Social Psychology, Vol. 68 (1964), pp. 453-456.

[2]S. Schachter, The Psychology of Affiliation (Stanford, California: Stanford University Press, 1959).

[3]H. Rosenfeld, "Relationships of Ordinal Position to Affiliation and Achievement Motives: Direction and Generality," Journal of Personality, Vol. 34 (1966), pp. 467-479.

[4]H. B. Gerard and J. M. Rabbie, "Fear and Social Comparison," Journal of Abnormal Social Psychology, Vol. 62 (1961), pp. 586-592.

[5]W. D. Altus, "Birth Order and Academic Primogeniture," Journal of Personality and Social Psychology, Vol. 2 (1965), pp. 872-876.

in a later study, derived similar observations.[1] Cobb and French noted a similar trend among male medical students.[2]

These studies generally agree with the study by Carson,[3] cited earlier. This investigation while focussing on social class and family size as variables in voluntary participation in continuing education may have been examining sibling position variables.

Kenneth Goodall, in a recent issue of Psychology Today, summarizes an investigation done by Louis Stewart into sibling position and election to the Presidency of the United States. Stewart found that eight out of nine men who were elected President during times of crisis were first-born or only siblings. During calmer times 13 out of 21 Presidents elected were younger sons; eight were first-born or only children.[4]

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[1]J. R. Warren, "Birth Order and Social Behavior," Psychological Bulletin, Vol. 65 (1966), pp. 38-49.

[2]S. Cobb and, J. R. French, Jr., "Birth Order Among Medical Students," Journal of the American Medical Association, Vol. 195 (1966), pp. 312-313.

[3]Carson, op. cit.

[4]Kenneth Goodall, "Big Brother and the Presidency," (a review of an investigation by Louis Stewart), Psychology Today, Vol. 5 (April, 1972), p. 24.

The majority of the literature cited generally supports the view that behaviors of individuals do in fact appear to vary with differing sibling positions.

Summary

The literature and investigations reviewed in this chapter indicate that the personality of the adult learner influences whether or not he participates in a learning activity. With regard to certain personality types, some individuals are screened out of group counseling activities by the counselor or by other group members. There are apparent personality differences among individuals of different sibling positions, and there may be differing needs for affiliation among individuals with different sibling backgrounds, with particular relevance to threatening or fear provoking situations. It is interesting to note that the sibling position described by Toman as least likely to excel in interpersonal relationships is that of the only child,[1] a sibling position which according to some of the literature cited is in greater evidence on college campuses than other specific sibling position types.[2]

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[1]Walter Toman, Family Constellation (2d ed.; New York: Springer Publishing Company, Inc., 1969), pp. 114-124.

[2]Altus, op. cit.; Cobb and Freench, op. cit.

III. METHODOLOGY

Introduction

Since the primary purpose of this study was to investigate the possible significance of family constellation in influencing frequency of participation in group counseling activities, it was necessary to utilize a research design, develop hypotheses, construct a sampling instrument, gain access to a population, collect the data, and test the hypotheses.

In order to have a manageable study a number of reality based factors were considered, such as the existence of a theoretical model, the availability of a population, the relative merits of different sampling procedures, and the availability of the university computer for statistical treatment of the data.

Research Design

The overall research design was influenced by the nature of the theoretical model used in this study and, by the identification of the independent and dependent variables. Sampling procedures and other factors, such as the nature of the population and the cost of various alternatives also affected the research design.

Other methods and procedures could have been utilized just as effectively. However, as Edward A. Suchman observes:

> There is no such thing as a single, 'correct' design. Different workers will come up with different designs favoring their own methodological and theoretical predispositions.[1]

Walter Toman has provided a theoretical framework which readily lent itself to this study.[2] Toman utilizes what he terms the "sibling position," which is derived by sex and rank.[3] Once the age and sex of a specific subject are known, and then the age and sex of any siblings, it is possible to categorize the individual in terms of sibling position. Toman describes nine basic sibling positions, which are:

1. Oldest brother of brother(s) (OBB)
2. Youngest brother of brothers(s) (YBB)
3. Oldest brother of sister(s) (OBS)
4. Youngest brother of sister(s) (YBS)
5. Oldest sister of sister(s) (OSS)
6. Youngest sister of sister(s) (YSS)
7. Oldest sister of brother(s) (OSB)
8. Youngest sister of brother(s) (YSB)
9. Other(s)[4]

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[1]Edward A. Suchman, "General Considerations of Research Design," in Delbert C. Miller, Handbook of Research Design and Social Measurement (New York: David McKay Company, Inc., 1964), pp. 31-32.

[2]Walter Toman, Family Constellation (2d ed.; New York: Springer Publishing Company, Inc., 1969).

[3]Ibid.

[4]Ibid., pp. 24--124.

The last category above, for "other(s)," includes those individuals who are combinations, such as a younger sister of brothers and sisters, middle children, and the only child. In Toman's view, middle children and children with both male and female siblings are exposed to a variety of role models which are generally favorable. The only child, though, is at an apparent serious disadvantage.[1] This latter point, empirically substantiated by Toman and others, seemed to justify the extraction of the "only child" sibling position out of the "other" category with placement in a separate one. Thus, ten sibling position categories were utilized in this investigation.

The dependent variable was the observed frequency of participation in group counseling activities, while the independent variable was conceptualized as sibling position. The frequency of participation in group counseling activities was viewed as the dependent variable since it was expected to vary in relation to changes in the independent variable.

Instrumentation

In order to collect the data required by the overall research design, a survey questionnaire was constructed. The

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[1] Ibid., pp. 114-124.

survey method of data collection is appropriate for this type of investigation in view of Phillips observations:

> The survey constitutes a method of data collection that utilizes interview or questionnaire techniques for recording the verbal behavior of respondents . It constitutes an effective tool for getting at cause-and-effect relationships.[1]

The survey instrument contained eight open-ended questions which sought data about two primary questions: the sibling position of the respondent and his frequency of participation in group counseling activities. In addition, the academic major of the subject was requested as well as information about continuity of schooling. (See appendix.) A pre-test of the survey instrument was conducted on twenty (20) students selected at random from the campus directory in order to eliminate any confusing or inadequate questions. No apparent difficulties in the instrument were observed.

Sample Population

In an attempt to partially control for both social class and intelligence, graduate students were selected as the target population. The Statistical Consulting Service provided by the Florida State University Departme t of Statistics recommended a sample size of 600, with a total

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[1]Bernard S. Phillips, Social Research: Strategy and Tactics (New York: The Macmillan Company, 1966), p. 107.

return of at least 300, in order to obtain a sufficiently representative sample and to reduce the likelihood of empty cells.

The most recent (1971-72) Florida State University campus directory was utilized in a sample without replacement procedure. The campus directory contains 105 pages in the "Student Listings" section. In order to draw a sample of at least 600 individuals, approximately six graduate students per page were needed. All graduate students were identified on each page of the directory and were assigned a number depending on the number for each particular page. A random number table was then used to select three males and three females from each page. In those instances where an insufficient number of males or females appeared on a page the deficit was added to the following page. No attempt was made to draw a representative number of students from each college or school With the exception of sex, subjects were selected as they appeared in the campus directory and as the number assigned to them was drawn from the random number table.

Some screening of the total population of graduate students did occur. Individuals of obvious foreign origin were excluded and graduate students with incomplete or wrong addresses were also eliminated. Although this last step was necessary in order to distribute a mailed questionnaire it may

have eliminated first term or new graduate students disproportionately.

The age and sex distribution of the sample is shown in Table 1, and college and school enrollment is presented in Table 2.

Data Collection

The survey instrument was xeroxed and sent to each selected graduate student, along with a stamped self-addressed envelope for return to the investigator. Envelopes with embossed postage stamps were utilized in order to help prevent subjects from removing the stamp and not returning the questionnaire. All questionnaires were mailed during a one week period and no attempt was made at follow-up to insure return. A reserve pool of subjects was drawn in the event of an inadequate response from the first sample.

The specific items contained in the data collection instrument, and the arrangement of the items, was a result of the hypotheses developed, a review of the literature and, the availability of a computer for statistical analysis.

Data Analysis

The nature of the research design, data collection instrument, and the hypotheses indicated that a chi-square or similar test be utilized in the analysis of data.

Since the frequency of participation category was a major variable, it was thought that any collapsing of raw responses into categories would result in a serious data loss. This decision led to the use of the Kruskal-Wallis test, which is essentially a one-way analysis of variance where observations are not matched, the chi-square and, the Wilcoxon rank-sum test.[1] The .05 level of statistical significance was the general standard used in testing the hypotheses.

Responses obtained from the survey questionnaire were placed on a FORTRAN coding form in eight discrete entries. These were: an identification number, present age of the respondent, sex, sibling position, number of siblings in the family, number of group counseling activities participated in during the preceding three years, the college or school the respondent was registered in and, whether or not there was a break between receipt of an undergraduate degree and enrollment in graduate school.

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[1]James V. Bradley, Distribution-Free Statistical Tests (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), pp. 129-134; Sidney Siegel, Nonparametric Statistics: For the Behavioral Sciences (New York: McGraw-Hill Book Company, 1956), pp. 75-83, 104-111.

IV. PRESENTATION AND ANALYSIS OF DATA

This chapter will involve a presentation and analysis of data collected in this investigation. The arrangement of material in this chapter will be based upon the contiguous presentation of each hypothesis, the questionnaire items used to collect the data, and the results of statistical treatment of the data appropriate to each hypothesis. The minimum level of acceptable statistical significance was set at .05.

Three tests of statistical significance were used in the analysis of data. They were the Kruskal-Wallis, the Wilcoxon Rank-Sum, and the chi square. Means, standard deviations, standard error of means, and percentages were computed when appropriate.

A total of 600 questionnaires were mailed out and 314 were returned and used in the analysis. Incorrect addresses accounted for 18 more questionnaires, 17 were filled out wrong, and 20 were returned too late to be used. A total of 369 questionnaires, or approximately 62 percent, were accounted for.

Tables 1 and 2 show the distribution of age categories and the distribution of academic majors, by sex, and provide an overview of the general nature of the sample. Of the 314 respondents 165 were female and 149 were male. Of 15 identified academic areas responses were obtained from individuals in 13 of them. The small size of some of the categories necessitated a collapse of cells for some statistical treatment. Only two responses were obtained from the School of Engineering Science. This small sample size, while not unusual since the School of Engineering Science is being closed at Florida State University, was thought to be inappropriate in the analysis and testing of the first and ninth hypothesis. These two hypotheses were tested with a sample size of 312. For more efficient statistical treatment the remaining 12 academic areas were reduced to 10. This was accomplished by combining interdivisional social science respondents with social science, and interdivisional natural science respondents with the general natural science responses.

Distribution of Sibling Positions

The first hypothesis was conceptualized as the basic starting point in an analysis involving sibling positions and frequency of participation in group counseling activities. It was essential to discover whether or not sibling positions

were distributed randomly across all academic areas. This hypothesis, stated in the null form, was: "There is no significant difference in the distribution of types of sibling positions among individuals enrolled in different colleges, schools or general academic areas." Five items on the survey questionnaire were used to collect the data required for the testing of this hypothesis. Item 1 identified the age of each subject for comparison with any siblings. Item 2 identified the respondents sex, while item 3 asked the ages of any sisters. Item 4 asked the ages of any brothers. These last two items also indicated the number of siblings of both sexes. A response to item 6 identified each subjects academic major. Raw responses were coded (see appendix) and programmed for computer treatment. A chi square test was used for testing this hypothesis. The data contained in Table 3 do not support the null hypothesis. The alternative hypothesis, that sibling position types are not distributed randomly by academic major, was statistically significant at the .01 level.

Even though the chi square statistic indicated a significance at the .01 level, it was observed that a large number of cells contained response sizes of two or less. This observed small response necessitated further analysis. Additional statistical treatment of the data, through expected value comparisons with observed values and the

collapse of some cells with extremely small or empty responses, indicated that contributions of those cells with expected frequencies of less than two added up to 78.12, out of a chi square statistic of 121.306. This is shown in Table 4.

The large contribution of small cell sizes to the chi square value strongly indicated that any observed statistical significance was a result of an inadequate sample and not due to any actual relationship.

Participation by Sibling Position

This research question sought to determine whether or not there was any significant difference between sibling positions and participation in group counseling. The specific hypothesis was: "There is no significant difference between different sibling positions and frequency of participation in group counseling activities." Five items on the survey questionnaire collected the data used in testing this hypothesis. Item 1 reported the respondents present age, item 2 indicated the subject's sex, item 3 indicated the ages and number of any sisters, item 4 the ages and number of any brothers, and item 5, which identified the number of group counseling activities the individual claimed to have participated in during the past three years. A Kruskal-Wallis statistical analysis was done in order to test this hypothesis.

TABLE 1

AGE AND SEX DISTRIBUTION OF SAMPLE

Age (In Groups)	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
20-24	32	21.0	58	35.0	90	28.66
25-29	59	39.0	60	36.0	119	37.89
30-34	24	16.0	18	11.0	42	13.37
35-39	15	10.0	11	7.0	26	8.28
40-44	7	4.0	8	5.0	15	4.77
45-49	9	6.0	3	1.8	12	3.82
50-54	1	.7	3	1.8	4	1.27
55-59	2	1.3	4	2.4	6	1.91
Totals	149	100.0	165	100.0	314	100.00

TABLE 2

COLLEGE OR SCHOOL ENROLLMENT OF SAMPLE

College or School Enrollment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Arts and Sciences						
Arts	3	2.01	9	5.45	12	3.82
Natural Sciences	27	18.12	9	5.45	36	11.47
Social Sciences	28	18.79	15	9.09	43	13.69
Languages	6	4.02	13	7.87	19	6.05
Business	21	14.10	0	0.00	21	6.69
Education	43	28.85	62	37.60	105	33.44
Engineering	2	1.34	0	0.00	2	0.69
Home Economics	2	1.34	10	6.06	12	3.82
Library Science	4	2.70	28	16.97	32	10.19
Music	6	4.02	10	6.06	16	5.09
Nursing	0	0.00	0	0.00	0	0.00
Social Welfare	2	1.34	6	3.64	8	2.55
Other[a]						
Arts	0	0.00	0	0.00	0	0.00
Natural Sciences	1	0.67	0	0.00	1	0.32
Social Sciences	4	2.70	3	1.81	7	2.23
Totals	149	100.00	165	100.00	314	100.00

[a]Includes Interdivisional and Interdepartmental Programs.

TABLE 3

DISTRIBUTION OF SIBLING POSITIONS
IN SAMPLE BY ACADEMIC MAJOR

Sibling Position	Academic Major									
	Business		Education		Home Economics		Library Science		Music	
	N	%	N	%	N	%	N	%	N	%
Only Child	2	9.5	28	26.7	5	41.7	9	28.1	3	18.1
OBB(S)	3	14.3	7	6.7	0	0.0	0	0.0	3	18.8
YBB(S)	3	14.3	3	2.9	0	0.0	1	3.1	2	12.5
OBS(S)	3	14.3	6	5.7	0	0.0	1	3.1	0	0.0
YBS(S)	2	9.5	3	2.9	0	0.0	0	0.0	0	0.0
OSS(S)	0	0.0	5	4.8	1	8.3	4	12.5	3	18.8
YSS(S)	0	0.0	5	4.8	0	0.0	6	18.8	1	6.3
OSB(S)	0	0.0	18	17.1	1	8.3	4	12.5	0	0.0
YSB(S)	0	0.0	9	8.6	1	8.3	1	3.1	0	0.0
OTHER	8	38.1	21	20.0	4	33.3	6	18.8	4	25.0
Total	21	100.0	105	100.0	12	100.0	32	100.0	16	100.0

$x^2 = 121.306$ df = 81

TABLE 3-Continued

Social Welfare N	%	Arts N	%	Languages N	%	Natural Science N	%	Social Science N	%	Total N	%
3	37.5	3	37.5	1	5.3	15	40.5	7	14.0	76	24.4
0	0.0	1	8.3	1	5.3	4	10.9	4	8.0	23	7.4
0	0.0	0	0.0	1	5.3	1	2.7	5	10.0	26	5.1
0	0.0	0	0.0	3	15.8	2	5.4	4	8.0	19	6.1
0	0.0	0	0.0	0	0.0	2	5.4	4	8.0	11	3.5
3	37.5	2	16.7	2	10.5	1	2.7	3	6.0	24	7.7
0	0.0	0	0.0	1	5.3	1	2.7	0	0.0	14	4.5
0	0.0	0	0.0	2	10.5	1	2.7	4	8.0	30	9.6
1	12.5	3	25.0	3	15.8	0	0.0	5	10.0	23	7.4
1	12.5	3	25.0	5	26.3	10	27.0	14	28.0	76	24.4
8	100.0	12	100.0	19	100.0	37	100.0	50	100.0	312	100.0

$p < .01$

TABLE 4

EXPECTED AND OBSERVED FREQUENCIES OF
SIBLING POSITION DISTRIBUTION
BY ACADEMIC MAJOR

Sibling Position	Academic Major: Business Expected	Business Observed	Education Expected	Education Observed
Only Child	5.11	2	25.61	28
OBB(S)	1.55	3	7.76	7
YBB(S)	1.07	3	5.35	3
OBS(S)	1.28	3	6.39	6
YBS(S)	.74	2	3.67	3
OSS(S)	1.62	0	8.07	5
YSS(S)	.95	0	4.71	5
OSB(S)	2.02	0	10.07	18
YSB(S)	1.55	0	7.76	9
OTHER	5.11	8	25.61	21

TABLE 4-Continued

Home Economics		Library Science		Music	
Expected	Observed	Expected	Observed	Expected	Observed
2.93	5	7.81	9	3.90	3
.88	0	2.36	0	1.18	3
.61	0	1.63	1	.82	2
.73	0	1.95	1	.98	0
.42	0	1.12	0	.56	0
.91	1	2.46	4	1.23	3
.54	0	1.44	6	.72	1
1.15	1	3.07	4	1.53	0
.88	1	2.36	1	1.18	0
2.93	4	7.81	6	3.90	4

TABLE 4-Continued

Sibling Position	Academic Major: Social Welfare Expected	Social Welfare Observed	Arts Expected	Arts Observed
Only Child	1.95	3	2.93	3
OBB(S)	.59	0	.88	1
YBB(S)	.41	0	.61	0
OBS(S)	.49	0	.73	0
YBS(S)	.28	0	.42	0
OSS(S)	.61	3	.91	2
YSS(S)	.36	0	.54	0
OSB(S)	.77	0	1.15	0
YSB(S)	.59	1	.88	3
OTHER	1.95	1	2.93	3

TABLE 4-Continued

Languages		Natural Science		Social Science	
Expected	Observed	Expected	Observed	Expected	Observed
4.63	1	9.03	15	12.20	7
1.41	1	2.73	4	3.70	4
.97	1	1.88	1	2.54	5
1.16	3	2.25	2	3.04	4
.66	0	1.29	2	1.74	4
1.46	2	2.85	1	3.84	3
.85	1	1.66	1	2.24	0
1.82	2	3.55	1	4.80	4
1.41	3	2.73	0	3.70	5
4.63	5	9.03	10	12.20	14

Table 5 lists the obtained data, which do not allow for the rejection of the null hypothesis. This would indicate that there was no significant difference between each sibling position in terms of frequency of participation, when compared to each individual other sibling position. This did not indicate though that there were no differences in sibling position and frequency of participation in group counseling activities. The Kruskal-Wallis statistic for this hypothesis indicated that there was no significant difference between any one sibling position when compared to any other one type of sibling position.

Participation by Middle Position Siblings

This research question involved an investigation into whether or not there were any differences in the degree of participation in group counseling activities evidenced by middle and "other" sibling position type individuals. The null hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities by middle children in comparison to other sibling positions." The same five items used to test the second hypothesis were used to test this one, the first five items on the survey questionnaire. The Wilcoxon rank-sum statistical test was used to investigate this hypothesis. Table 6 presents

the analyzed data which do not allow the hypothesis to be rejected. This would seem to indicate that there was no significant difference in the frequency of participation between middle and "other" sibling positions when compared to all of the other positions taken together.

Participation by Only Children

This hypothesis was concerned with the frequency of participation evidenced by the only child sibling position in comparison to all other sibling positions taken together. The specific hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities by only children in comparison to other sibling positions." The Wilcoxon rank-sum test was used, along with the responses to the first five questionnaire items, to determine the statistical significance of this hypothesis. Table 7 lists the analyzed data which allow the null hypothesis to be rejected ($p < .001$). The only child sibling position evidenced significantly more participation in group counseling activities than did all other sibling positions taken together.

TABLE 5

MEANS AND RANK ANALYSIS OF SIBLING POSITIONS
AND FREQUENCY OF PARTICIPATION
GROUP COUNSELING ACTIVITIES

Sibling Position	Average Rank	Frequency of Participation Mean	S.D.	S.E. of Mean	Sample Size
0. Only Child	11480.0	1.5455	4.4086	.5024	77
1. OF	3436.5	2.7500	10.2756	2.0975	24
2. [illegible]	2756.0	5.1875	11.8390	2.9598	16
3. OBS(s)	2804.0	1.8421	5.7180	1.3118	19
4. YBS(s)	1954.0	3.0000	5.5317	1.6679	11
5. OSS(s)	3672.0	.7083	1.1971	.2444	24
6. YSS(s)	2171.0	.7857	1.4769	.3947	14
7. OSB(s)	5276.5	1.4000	2.2682	.4141	30
8. YSB(s)	3933.5	1.7826	3.4897	.7276	23
9. Other(s)	11971.5	1.3947	3.6809	.4222	76

H = 4.257 df = 9 Not Significant

TABLE 6

FREQUENCY OF PARTICIPATION BETWEEN MIDDLE AND "OTHER" SIBLING POSITIONS COMPARED TO ALL OTHER SIBLING POSITIONS

Sibling Position	Rank-Sum Statistic	Average Rank	Number
Middle and "Other"	12009.50	158.02	76
All Others Combined	37445.50	157.33	238
J* = .0680	df = 314	Not Significant	

*Based on the normal approximation

TABLE 7

FREQUENCY OF PARTICIPATION BETWEEN THE ONLY CHILD AND ALL OTHER SIBLING POSITIONS COMBINED

Sibling Position	Mean	S.D.	S.E. of Mean	Rank-Sum Statistic	Average Rank	Number
Only Child	1.55	4.41	.50	38814.50	504.08	77
All Others Combined	1.33	5.52	.36	10640.50	44.90	237
J* = -39.49						$p < .001$

* Based on the normal approximation

Participation Between Younger and Older Sibling Positions

This research question sought to determine whether or not there was any significant difference in the frequency of participation in group counseling activities between individuals in younger and older sibling categories. The specific hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities between individuals in older sibling positions compared to individuals in younger sibling positions." The first five items on the survey questionnaire were used in the analysis of this hypothesis, which was done with the Wilcoxon rank-sum test. In this analysis the four older sibling positions were compared to the four younger categories in order to determine whether or not there were any significant differences between the two groups. The findings presented in Table 8 indicate that there was no significant difference. The null hypothesis was not rejected. The result of this test indicated that individuals, in this sample, in older sibling positions did not participate in group counseling activities with any greater or less frequency than individuals in younger sibling positions.

TABLE 8

FREQUENCY OF PARTICIPATION BETWEEN
OLDER AND YOUNGER SIBLING POSITIONS

Sibling Position	Mean	S.D.	S.E. of Mean	Rank-sum Statistic	Average Rank	Number
Older Sibling Positions	1.65	5.8	.59	7610.00	78.45	97
Younger Sibling Positions	2.63	6.8	.84	5431.00	84.86	64
J* = -.9895					Not Significant	

* Based on the normal approximation

Participation Between Different Sizes of Sibling Groups

This research question sought to investigate the role, if any, of different sizes of sibling groups in an individual's frequency of participation in group counseling activities. That is, the effect of the number of siblings in an individual's family constellation were studied in order to assess the role of the number of siblings in influencing participation in group counseling activities. The specific hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities between sibling groups of varying sizes." The first five items on the survey questionnaire were utilized in collecting data. The analysis of data for this hypothesis was done with the Kruskal-Wallis test. Table 9 lists the analyzed data which do not allow the null hypothesis to be rejected. This indicated that the number of siblings an individual had did not significantly relate to his frequency of participation in group counseling activities.

Participation by Males and Females

This research question sought to determine whether or not there were any significant differences in the observed frequency of participation in group counseling activities

between males and females. The null hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities between males and females." Two items on the survey questionnaire were used to provide the data essary to investigate this hypothesis. Item 2 identified each subject's sex and item 5 determined the number of group counseling activities the individual had participated in during the preceding three year period. The data were analyzed with the Wilcoxon rank-sum test. The data listed in Table 10 indicates that there was a significant difference and thus allowed for the rejection of the null hypothesis. The sex of the respondents was a significant variable and evidenced a relationship in the frequency of participation in group counseling activities ($p < .001$), with males participating more than females.

Participation by Individuals of Different Age Categories

This research question sought to determine whether or not there were any significant differences in the frequency of participation between individuals of different age groups. The hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities between individual subjects of different age categories."

Item 1 on the survey questionnaire identified each subject's age, while item 5 determined the number of group counseling activities the individual claimed to have particpated in during the preceding three years. The Kruskal-Wallis test was used to analyze the data for this hypothesis. Since the total range of possible ages was unmanageable, age responses were collapsed into eight five-year categories ranging from age 20 up to age 59. Table 11 lists the analyzed data, which allow the null hypothesis to be rejected ($p < .05$). Individuals of different age categories indicated significantly different frequencies of participation.

In order to determine where the differences lay an experimentwise error rate at $\beta = .20$ was computed. Table 12 presents the results of this analysis, which indicates that individuals in the 45-59 age category participated significantly more than individuals in the 20-24 and 25-29 age categories.

Participation and Academic Major

This research question involved an investigation into whether or not individuals enrolled in different academic areas significantly differed in the degree to which they participated in group counseling activities. Item 5 on the survey questionnaire collected data about the frequency of

participation in group counseling activities. Item 6 on the survey questionnaire was used to identify each subject's academic area. The specific hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities among individuals enrolled in different colleges, schools, or general academic areas." This hypothesis was examined with the use of the Kruskal-Wallis test. The data in Table 13 indicates that a significant difference exists ($p < .001$). Individuals enrolled in different academic areas indicated significantly different frequencies of participation.

In order to determine where the differences lay an experimentwise error rate at $\beta = .20$ was computed. Table 14 presents the results of that analysis, which indicates that education majors participated in group counseling activities significantly more than individuals majoring in library science, music, natural science, and social science. Also social science majors participated more than natural science majors.

Participation and Educational Continuity

This research question sought to determine whether or not there was any significant difference in the frequency of participation in group counseling activities between individuals with uninterrupted college enrollment from undergraduate to graduate school and individuals with breaks over

one year in length. The null hypothesis was: "There is no significant difference in the frequency of participation in group counseling activities between individuals with continuous college enrollment and individuals with interrupted enrollment." Responses to items 7 and 8 on the survey questionnaire were the sources of data used in testing this hypothesis. A Wilcoxon Rank-Sum statistic was computed for the two categories. Table 15 presents the analyzed data, which allow the null hypothesis to be rejected ($p < .001$). Individuals with uninterrupted schooling appeared to have participated in group counseling activities significantly more than individuals with interrupted schooling.

TABLE 9

FREQUENCY OF PARTICIPATION BETWEEN
DIFFERENT SIZES OF SIBLING GROUPS

Size of Sibling Group	Mean	S.D.	S.E. of Mean	Average Rank	Number
1	1.57	4.43	.51	-	76
2	2.08	6.61	.57	-	134
3	1.54	3.28	.39	-	72
4	1.64	5.03	1.01	-	25
5	.50	.84	.34	148.41	6
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	1

H = 1.038 df = 4 Not Significant

TABLE 10

FREQUENCY OF PARTICIPATION BETWEEN
MALES AND FEMALES

Sex	Mean	S.D.	S.E. of Mean	Rank-Sum Statistic	Average Rank	Number
Male	2.09	6.67	.55	32754.00	219.83	149
Female	1.47	3.56	.28	16701.00	101.22	165
J* = -12.7731					P < .001	

* Based on the normal approximation

TABLE 11

FREQUENCY OF PARTICIPATION BETWEEN INDIVIDUALS OF DIFFERENT AGE CATEGORIES

Age Categories (in groups)	Mean	S.D.	S.E. of Mean	Average Rank	Number
20-24	.66	1.64	.17	143.66	90
25-29	1.47	4.11	.38	147.85	119
30-34	2.02	7.03	1.09	167.33	42
35-39	2.78	4.81	.94	191.33	26
40-44	1.20	1.90	.49	167.07	15
45-49	9.25	14.89	4.30	225.33	12
50-59[a]	3.30	7.50	2.36	171.85	10

H = 14.652 df = 6 P<.05

[a]The last two categories were collapsed due to small sample size

TABLE 12

DIRECTION OF AGE DIFFERENCES
IN THE FREQUENCY OF PARTICIPATION

Significant Age Categories	Direction of Differences[a]
(20-24)	(20-24) < (45-49)
(25-29)	(25-29) < (45-49)
(45-49)	

[a]with $\beta = .20$, and $P < .05$

TABLE 13

PARTICIPATION IN GROUP COUNSELING
ACTIVITIES BY ACADEMIC MAJOR

Academic Major	Mean	S.D.	S.E. of Mean	Rank-Sum Statistic	Average Rank	Number
Business	.3333	.7958	.1737	2713.5	129.21	21
Education	3.5810	8.0727	.7878	19898.0	189.50	105
Home Economics	.4167	1.1645	.3362	1531.0	127.58	12
Library Science	.5000	1.0776	.1905	4425.0	138.28	32
Music	.2500	.7746	.1936	1929.5	120.59	16
Social Welfare	1.6250	1.5980	.5650	1607.0	200.88	8
Arts	.6667	1.3707	.3957	1699.0	133.25	12
Language	.5789	1.3464	.3089	2571.5	135.34	19
Natural Science	.0270	.1644	.0270	3914.0	105.78	37
Social Science	2.2400	4.7189	.6673	8539.5	170.79	50

H = 37.307 df = 9 p < .001

TABLE 14

DIRECTION OF DIFFERENCES IN PARTICIPATION
BY ACADEMIC MAJORS IN SAMPLE

Significant Academic Majors	Direction of Differences[a]
1. Education	(1) > (2);(3);(4);(5)
2. Library Science	(2) < (1)
3. Music	(3) < (1)
4. Natural Science	(4) < (1);(5)
5. Social Science	(5) < (1); (5) > (4)

[a]With $\beta = .20$, and $p < .001$

TABLE 15

EDUCATIONAL CONTINUITY AND
FREQUENCY OF PARTICIPATION
IN GROUP COUNSELING ACTIVITIES

Educational Continuity	Mean	S.D.	S.E. of Mean	Rank-Sum Statistic	Average Rank	Number
Yes	.81	1.97	.18	45024.00	381.56	118
No	2.34	6.43	.46	4431.00	22.61	196
J* = -36.2705					P < .001	

*Based on the normal approximation

V. SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

This Chapter is concerned with the summarization of the background of the study, methodology, findings, conclusions, and theoretical and practical implications.

Background

Not all adults choose to engage in learning or personal growth group activities when provided the opportunity to do so. Educators with limited resources are required to determine the appropriateness of group oriented activities for their program or setting. Regardless of their merit, programs or activities not serving large numbers of students are all too often discontinued. An investigation into the characteristics of individuals who participate, and those who do not participate, in group counseling activities should provide the educator with information which would help him achieve effective utilization of programs and activities.

Several investigations suggest that the personality of the adult is a major variable in influencing whether or

not he participates in educational activities.[1] Walter Toman has developed a theory of personality, based on family constellation,[2] which readily lent itself to a study involving frequency of participation in group counseling activities.

Methodology

In an attempt to investigate the possible significance of sibling position or birth order as a behavioral determinant in an adult's life with respect to one primary variable, voluntary participation in group counseling activities, 600 graduate students at Florida State University were randomly selected from the campus directory and mailed a survey questionnaire. Usable responses were obtained from 314 individuals and provided the data for analysis by the university's computer facilities.

The survey questionnaire contained eight items and was pre-tested on a random sample of 20 individuals. Each subject was asked to indicate his age, sex, number of sisters, number of brothers, number of group counseling activities engaged in during the immediately preceding three-year period, academic major, date of graduation from an undergraduate program, and date of admission to a graduate program.

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[1]Zahn and Phillips, op. cit.; Ewigleben, op. cit.; Scharles, op. cit.

[2]Walter Toman, op. cit.

Findings

Ten hypotheses were examined and were analyzed with either a chi square, Kruskal-Wallis, or Wilcoxon rank-sum test of significance. The first hypothesis sought to determine whether or not the ten sibling positions were distributed randomly across all academic areas in the university. A chi square statistic significant at the .01 level indicated that sibling positions were not distributed randomly. Further analysis of data revealed that contributions of cells with expected frequencies of less than two contributed a sum of 78.12, out of a total chi square statistic of 121.306.

The next research question concerned the frequency of participation in group counseling activities by each sibling position taken one at a time. A Kruskal-Wallis test indicated that there was no significant difference between each sibling position.

The third research question involved the frequency of participation in group counseling activities by middle or "other" position siblings. A Wilcoxon rank-sum test did not find any significant difference between the two groups.

A fourth hypothesis examined the frequency of participation in group counseling activities by the only child sibling position. A difference significant at the .001 level was found, with the only child sibling position evidencing

a greater frequency of participation than all other positions taken together.

The next research question investigated possible differences in the frequency of participation in group counseling activities between older and younger sibling ranks. A Wilcoxon rank-sum test was used but no significant difference was found.

The sixth hypothesis examined the role of the number of siblings each individual had as a variable in influencing frequency of participation in group counseling activities. An analysis of this hypothesis with the Kruskal-Wallis test indicated that there were no significant differences.

The next research question utilized the Wilcoxon rank-sum test to determine whether or not there were any significant differences in participation in group counseling activities between males and females. A difference significant at the .001 level was found, with males participating more than females.

The eighth hypothesis examined the significance of age in relation to participation in group counseling activities. The Kruskal-Wallis test indicated a significance at the .05 level, and indicated that individuals in the 45 to 49 years of age group participated more frequently than

individuals in both the 20 to 24 category and the 25 to 29 category.

The next research question investigated the significance of enrollment in different academic majors in relation to the frequency of participation in group counseling activities. The Kruskal-Wallis test revealed a significant difference at the .001 level. Individuals enrolled in the College of Education participated in significantly more group counseling activities than individuals enrolled in Library Science, Music, natural science, and social science. Individuals enrolled in the natural sciences also participated in group counseling activities significantly less than individuals enrolled in the social science area.

The last research question examined the significance of educational continuity as a variable in the frequency of participation in group counseling activities. A Wilcoxon rank-sum statistic significant at the .001 level was computed, with individuals with uninterrupted schooling participating more than individuals with a break of one year or more from the date of completing an undergraduate program and beginning graduate school.

Conclusions

The results of this investigation were based on data collected from graduate students at only one university. Any generalization to other populations should be extremely guarded. In terms of frequency of occurrence of different sibling positions, graduate students at Florida State University are apparently not identical with either undergraduate students, at Florida State University and elsewhere, nor with medical students. It is not known whether or not the distribution of sibling positions in colleges and universities is still similar to that described in Chapter III, or whether recent changes have occurred so that this study is more generalizable.

Another limitation of this study lies in the manner in which sibling positions were assigned to each respondent. Losses of significant others, the sibling position of parents, and marital status of each subject were not considered. A very basic assignment resting solely on birth order was used.

Rigid controls for dealing with intelligence, social class, ethnic origin, specific academic major, type of previous work experience, if any and previous mental or emotional difficulties were also not employed. A partial

attempt to control for intelligence and social class was made by selecting graduate students as a population. Also, individuals of obvious foreign (non-Anglo Saxon) origin were excluded from the study.

Notwithstanding the above limitations, it seems that sibling position does have some influence over an individual's adult life. It is unclear whether or not sibling position influences the selection of a specific academic area, though a percentage distribution suggests a trend in that direction. The only child sibling position clearly evidenced a greater incidence of participation in group counseling activities than the other nine categories taken together. This finding seems to be in clear agreement with the literature cited in Chapter III. Significant differences in the frequency of participation between males and females were also noted in this investigation. While nothing cited in the literature specifically mentioned male-female personality differences directly relevant to this finding, the fact that there are observed differences in the personalities of males and females provides at least a general type of support to this finding. Observed differences between varying age categories may reflect generational characteristics or, the differences may reflect the fact that at least some individuals in the

45 to 49 year old category were at one time group counselors. The disparity between this category and the 20 to 24 and 25 to 29 year old groups may reflect simple lack of professional training by the younger groups of individuals. Differences in the frequency of participation by various academic areas probably reflects reality at Florida State University, and possibly elsewhere. It is fairly reasonable to assume that individuals in "people oriented" academic areas would evidence a greater interest in group counseling activities than individuals in the natural sciences, music, and library science. That the finding that individuals enrolled in the College of Education engaged in a greater number of group counseling activities than individuals in the natural sciences, music, library science, and the social sciences is also consistent with the emphasis given group growth activities at Florida State University. The Department of Counselor Education, College of Education, has placed a great deal of emphasis on group counseling activities. Also, many of the staff members of the University Counseling Center hold joint appointments with the Department of Counselor Education. It is also worth repeating that sensitivity training was developed out of adult education, and that Florida State University has a large Department of Adult Education with

many of its' faculty members interested in group processes. The last significant finding concerned educational continuity and frequency of participation in group counseling activities. Individuals with continuous schooling participated in significantly more group counseling activities than individuals with breaks in their academic careers, from undergraduate to graduate programs. This finding may reflect social class characteristics, with wealthier students being able to continue their schooling while poorer students are more often required to earn enough money to continue on. However, this finding may reflect generational factors. As Carl Rogers was quoted early in this study, sensitivity training is a fairly recent development.

In summary, the following observations are drawn from the findings of this investigation: only children participated in significantly more group counseling activities than did other sibling positions; males participate in more group counseling activities than females; individuals in the 45 to 49 year old category engaged in more group counseling activities than individuals in both the 20 to 24 and 25 to 29 year old groups; education majors participate in more group counseling activities than individuals majoring in the natural sciences, music, library science, and the social sciences;

individuals majoring in the social sciences participated in more group counseling activities than did individuals majoring in the natural sciences; individuals who continued their schooling from undergraduate to graduate study without a break participated in more group counseling activities than individuals with interruptions in their schooling.

Implications

This section will consist of the presentation of both theoretical and practicial implications, and implications for additional research. Because of the nature of the data collection procedures and some inconclusive findings, a conservative approach to implications has been taken.

Theoretical Implications

The findings of this investigation, at least in regards to the only child sibling position, appear to support part of Walter Toman's theory of family constellation. The only child sibling position did evidence behavior significantly different from the behavior of other sibling positions in the sample. At the same time, this finding could as easily be viewed as supporting role theory. The observed differences in the behavior of the only child may be interpreted as the inability of some individuals to learn appropriate social roles, and their failure to discern role

expectations that deal with social interaction. From this point of view the only child can be described, in some instances, as lacking some behaviors in his repertoire of social interaction skills that contribute to his role performance in dealing with people. However, this relevance for role theory interpretation is not inconsistent with Toman's theory, since the bulk of family constellation theory revolves around social roles learned in a primary group.

Limitations in the research design may have prevented any additional significant findings with regard to sibling position and frequency of participation in group counseling. Many of the behaviors described by Toman as generally applicable to different sibling positions may be inappropriate to the one variable of participation in group counseling. Also, the sample size and survey questionnaire may have been too limited to discern all possible differences.

Observed differences in the participation in group counseling activities between males and females may be the result of actual relevant personality differences between the sexes, different levels of skill in social interaction, the greater social approval assigned to males in sensitivity training, as opposed to individual counseling or psychotherapy, combinations of the above factors, or entirely unknown factors.

What is clear, though, is that there was an observed significant male-female difference.

A major component of Toman's theory of personality is the duplication theorem, which generally states that individuals tend to duplicate their original family constellation in their selection of friends and spouses. This investigation did not specifically disprove the duplication theorem. This ambiguity is based on the fact that this study was not designed to isolate and test the duplication theorem as a discrete conceptual component.

In essence, the simple variable of birth order seems to have some influence over the adult's life, with respect to participation in group counseling activities.

Practical Implications

The first practical implication of the findings in this investigation deals with the only child sibling position.

If the only child engages in group counseling activities because of a deficiency in his interpersonal skills, group counseling activities should be specially designed for this target population. Particular attention might be given to role playing, interpersonal communications, and the trying out of new behaviors in such special counseling groups. Heteregenous groups would provide exposure to diverse roles. A deliberate attempt could be made to insure that each

counseling group is composed of numerous sibling position type individuals, thus providing a multiplicity of role models.

Academic areas preparing individuals for occupations or professions dealing with people in a helping relationship should give some consideration to the distribution of sibling positions in their programs, and possibly offer remedial interactional skills to only child sibling position type individuals who need such skills.

Sex differences in participation in group counseling activities indicate a need to involve additional females in group counseling activities. It is quite likely that the preponderance of males in the 45 to 49 year old age category with extensive group counseling experience, possibly as counselors, reflects the sex distribution of advanced students in counselor education, adult education, and marriage counseling. If this is true, a determined effort to recruit additional females should be made. A sex distribution more representative of the general population could provide for more meaningful opportunities for role modeling for all concerned individuals.

Deliberate recruitment and involvement of individuals in academic areas not presently emphasizing group counseling

activities could help insure that only children receive many opportunities for learning interactional skills, a learning opportunity apparently not emphasized in some academic departments.

Recommendations

Several studies should be undertaken in areas relevant to sibling position and frequency of participation in group counseling activities. First, a study should be undertaken to determine whether or not sibling positions are randomly distributed by academic major. Next, rigid controls should be applied to social class, race, ethnic origin, intelligence, work history, and prior emotional or mental difficulties, and this study replicated on a wider population. Third, a study into whether or not only children are learning social interactions skills in group counseling should be done. A fourth area for additional investigation lies in the degree of satisfaction expressed by the various sibling positions engaged in group counseling activities. This study could examine the duplication theorem more effectively. A fifth study would involve a determination into specific departmental and academic major frequency of participation in group counseling activities. A study controling for individuals who have worked as counselors should be done, to investigate the significance of age and participation in group counseling activities. An additional study involving

sibling position and withdrawal from college, academic performance, and participation in individual counseling or psychotherapy should be undertaken, with particular emphasis given to the only child sibling position. Another investigation which could provide data presently missing from the literature would require the utilization of all of Walter Toman's sibling position assignment criteria and participation by individuals in all types of learning experiences and not limited to group counseling. Extension of this present study, with additional controls, to an undergraduate population or a high school population should be done in order to determine the possible significance of the screening that occurs in higher education.

APPENDICES

APPENDIX A

DATA COLLECTION AND PROGRAMMING INSTRUMENTS

SURVEY QUESTIONNAIRE

Dear Graduate Student:

IN ORDER TO COMPLETE MY DISSERTATION I NEED YOU HELP IN FILLING OUT THIS QUESTIONNAIRE. I DO NOT NEED YOUR NAME OR ANY IDENTIFYING INFORMATION. PLEASE COMPLETE THIS FORM AND RETURN IT IN THE STAMPED ENVELOPE THAT HAS BEEN PROVIDED EVEN IF SOME OF YOUR ANSWERS ARE "NONE" OR "0."

1. What is your present age? _____

2. Are you male or female? _____

3. What are the ages of any sisters you have? _____

4. What are the ages of any brothers you have? _____

5. How many group counseling activities, such as t-groups, marathons, sensitivity training, human relations groups, Gestalt groups, etc., have you participated in during the past three years? _____

6. What is your academic major? _____

7. What year did you receive your undergraduate degree? _____

8. What year did you enter graduate school in your present program? _____

THANK YOU FOR YOUR HELP IN COMPLETING MY STUDY.

CODING KEY

Column 1-3. Identification number:

001 through 314

Column 5. Age in categories:

1 20-24
2 25-29
3 30-34
4 35-39
5 40-44
6 45-49
7 50-54
8 55-59

Column 7. Sex:

1 Male
2 Female

Column 9. Sibling Position:

0 Only Child
1 Older Brother of Brother(s)
2 Younger Brother of Brother(s)
3 Older Brother of Sister(s)
4 Younger Brother of Sister(s)
5 Older Sister of Sister(s)
6 Younger Sister of Sister(s)
7 Older Sister of Brother(s)
8 Younger Sister of Brother(s)
9 Middle Children and Other(s)

Column 11. Number of Siblings in Family:

1 through n

Column 13-14. Number of Group Counseling Activities:

00 - 50

Column 16-17. Academic Major:

01 School of Business
02 College of Education
03 School of Engineering Science
04 School of Home Economics
05 School of Library Science
06 School of Music
07 School of Nursing
08 School of Social Welfare
09 College of Arts and Sciences--Arts Area
10 College of Arts and Sciences--Natural Sciences Area
11 College of Arts and Sciences--Social Sciences Area
12 College of Arts and Sciences--Languages Area
13 Interdividional and Interdepartmental Programs--Arts Area
14 Interdivisional--Natural Science Area
15 Interdivisional--Social Science Area

Column 19. Educational Continuity:

1 Yes (There was no break in schooling)
2 No (There was a break; not continuous)

APPENDIX B

ADDITIONAL SUPPORTIVE SAMPLE DATA

TABLE 16

DISTRIBUTION OF SIBLING POSITIONS IN SAMPLE

Sibling Position	Frequency	Percent
Only Child	77	24.52
Older Brother of Brother(s)	24	7.64
Younger Brother of Brother(s)	16	5.10
Older Brother of Sister(s)	19	6.05
Younger Brother of Sister(s)	11	3.50
Older Sister of Sister(s)	24	7.64
Younger Sister of Sister(s)	14	4.46
Older Sister of Brother(s)	30	9.55
Younger Sister of Brother(s)	23	7.32
Middle Children and Other(s)	76	24.20
Totals	314	100.00

TABLE 17

NUMBER OF SIBLINGS IN FAMILY

Number of Siblings In Family	Frequency	Percent
1	77	24.20
2	134	42.68
3	72	22.93
4	25	7.96
5	6	1.91
6	0	0.00
7	0	0.00
8	1	0.32
Totals	314	100.00

TABLE 18

FREQUENCY DISTRIBUTION OF GROUP COUNSELING ACTIVITIES IN SAMPLE

Number of Group Counseling Activities	Frequency	Percent
0	206	65.61
1	39	12.42
2	18	5.73
3	18	5.73
4	5	1.59
5	5	1.59
6	4	1.27
7	1	.32
8		.32
10		.64
12	3	.96
13	1	.32
14	1	.32
15	2	.64
18	1	.32
20	2	.64
24	1	.32
25	2	.64
45	1	.32
50	1	.32
Totals	314	100.00

TABLE 19

EDUCATIONAL CONTINUITY OF SAMPLE

Educational Continuity	Frequency	Percent
Yes	118	37.58
No	196	62.42
Totals	314	100.00

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VITA

John H. Dale, Jr. was born in Gainesville, Florida, on November 18, 1942. He attended public schools in Pinellas County, Florida and graduated from the St. Petersburg Junior College in 1965. In August of 1966 he received a Bachelor of Science from Florida State University, with a major in Social Welfare and a minor in Criminology and Corrections. During this period, he served as a Student Senator and, in addition, was nominated for membership in Phi Alpha, the National Social Work Academic Honorary. In June of 1968 he received a Master of Rehabilitation Counseling from the University of Florida. While there, he served as President of the University of Florida Rehabilitation Association. Following graduation he was employed by the Florida Division of Corrections, at the Reception and Medical Center, Lake Butler, Florida, as an Education Counselor. Upon entering graduate school at Florida State University in 1970, he worked part-time with the Florida Division of Corrections, Central Office, Tallahassee, Florida, as a Research Assistant. After completing his course work, he began full time employment with the State of Florida,

Department of Health and Rehabilitative Services, Division of Planning and Evaluation, as a Planner and Evaluator. In January of 1972, he transferred to the Governor's Council on Criminal Justice where he is employed as a Planner with the Comprehensive Criminal Justice Manpower Program.