EXPLORATION OF EMPATHY IN NURSE-CLIENT INTERACTION

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

THE DEGREE OF DOCTOR OF PHILOSOPHY IN NURSING

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY

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DENTON, TEXAS

MAY 1977

The Graduate School

Texas Woman's University

Denton, Texas

December 1976

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Science moves but slowly, slowly

creeping on from point to point.

--Tennyson
Locksley Hall, Line 134

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ACKNOWLEDGMENTS

The constant incentive and support of the Doctoral Dissertation Committee, chaired in the formative stages by Dr. Elaine Mansfield, and in the developmental and completion stages by Dr. Peggy Chinn is acknowledged with sincere gratitude and appreciation. The constructive criticism of Dr. Floris E. King gave direction for progress in all phases of the research process. Drs. Carper's and Gudmundsen's suggestions and encouragement sustained and enhanced the effort. Dr. Robert Littlefield and Dr. Bettye Myers carefully reviewed and gave assistance. Dr. Basil Hamilton, although not on the committee, gave his time and help with statistics and analysis of data.

A note of thanks is tendered to the administrators, directors of nursing service and nursing education, and to the physicians who gave approval and assistance for the collection of data in their respective facilities. To the seventy nurses and seventy clients who participated as subjects goes my grateful appreciation and the hope that the effort of participation brings increasing benefits and satisfactions to their lives.

Finally, acknowledgment of indebtedness with gratitude and love goes to Charles Clifford Forsyth who not only tolerated encroachments on his time and pleasure but who also empathically understood and allowed me to cast my own shadow.

* * * * * * * *

Financial assistance for this research was provided through a Texas Woman's University Institutional Grant. Computer time was supported in full through the facilities of the Computer Science Center of the Texas Woman's University.

CHAPTER I

INTRODUCTION

The Problem Statement

This study is concerned with the description and explanation of interactive empathic ability levels of professional nurses. Areas addressed are: (1) assessment of empathic ability levels of nurses, (2) the relationship of empathic ability level of the nurse to client perception of nurse empathy, and (3) the predictive relationship between empathic ability and selected demographic variables.

Significance of the Study

As was predicted in 1970 by Alvin Toffler, the world has "collided with tomorrow" and individuals as well as groups are experiencing symptoms of shock.[1] In the health care system, many crises are identified and changes are occurring in all the health care disciplines, as a response to both internal and external societal pressures.

Nursing as a major part of the health care system has not escaped "the crisis" in American health

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[1]Alvin Toffler, Future Shock (New York: Random House, 1970), p. 1.

care.[1] Although it is not the writer's purpose to analyze the lag in health care advances, it is important to understand that as changing patterns expand health care opportunities, so they increase its problems. The central problem for all health professionals becomes how to incorporate today's advances with the still-useful practices of yesterday. The National Commission for the Study of Nursing and Nursing Education in its summary report and recommendation suggested that it "may be that nursing, in particular, holds the key to maintenance of humane, individualistic concern for people and their health problems. And this capacity must be zealously enlarged."[2] It is in the interest of this charge to nurses that the current study is proposed. In considering its implications we are forced to be aware of not only the honor and status but also the immense responsibility. We are, however, in a unique position to undertake this responsibility. Virginia Henderson speaks to this uniqueness in The Nature of Nursing as follows:

> The unique function of the nurse is to assist the individual, sick or well, in the performance

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[1]U.S. National Advisory Commission on Health Manpower, Report Vol. 1 (Washington, D.C.: U.S. Government Printing Office, 1966), p. 2.

[2]National Commission for the Study of Nursing and Nursing Education: "Summary Report and Recommendations," American Journal of Nursing 70 (February 1970): 284.

> of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge. And to do this in such a way as to help him gain independence as rapidly as possible. This aspect of her work, this part of her function, she initiates and controls; of this she is master. . . .
>
> This concept of the nurse as a substitute for what the patient lacks to make him "complete," "whole," or "independent," by the lack of physical strength, will, or knowledge, may seem limited to some. The more one thinks about it, however, the more complex the nurse's function as so defined proves to be. Think how rare is "completeness," or "wholeness," of mind and body, to what extent good health is a matter of heredity, to what extent it is acquired, is controversial, but it is generally admitted that intelligence and education tend to parallel health status. If then each man finds "good health" a difficult goal, how much more difficult is it for the nurse to help him reach it: she must, in a sense, get "inside the skin" of each of her patients in order to know what he needs. She is temporarily the consciousness of the unconscious, the love of life for the suicidal, the leg of the amputee, the eyes of the newly blind, a means of locomotion for the infant, knowledge and confidence for the young mother, the "mouthpiece" for those too weak or withdrawn to speak, and so on.[1]

The above definition speaks to the consistent role of the nurse as helper whenever and wherever she may be needed. The most important basis of a helping relationship which facilitates growth, as identified by Carl Rogers, is empathy.[2] Empathic understanding valued in the past must

[1]Virginia Henderson, The Nature of Nursing: A Definition and Its Im lications for Practice Research, and E ucatıon New Yor : Macmıllan Company, 1 , p. 15.

[2]Carl R. Rogers, On Becoming a Person (Boston: Houghton Mifflin Company, 1961), p. 284.

continue to be a concern if we are to remain viable professionals in a world where individuals feel lonely and alienated. Troubled people everywhere are searching deeply within themselves for personal meaning and exploring relationships with others for solutions. Carkhuff emphatically states that "without empathy there is no basis for helping."[1] It appears appropriate that, as the profession of nursing seeks to expand its traditional service and responsibility, it should be concerned with that which constitutes our binder to others--empathy. We must investigate small questions before we attempt global answers. Tennyson's couplet used as preface to this study fits this rationale.[2] This study is important to the greater study of the direct practice of nursing--the only reason for "being" in the professional sense.

Urgency of the Problem

Concern about the quality of interpersonal functioning is evident in every aspect of life. Rapid change has forced a re-evaluation of personal as well as social systems. Nursing as a social system is caught up in an urgent

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[1]Robert R. Carkhuff, Helping and Human Relations, vol. 2: Practice and Research (New York: Holt, Rinehart, and Winston, 1969), p. 83.

[2]Alfred Lord Tennyson, Locksley Hall, Line 134.

re-examination of its nature and of the base upon which nursing knowledge rests. Nursing leaders are committed to enlarging the art and the science base through scientific inquiry.

This study represents an initial phase in the process of description, explanation, prediction, and control of one phenomenon of nursing--empathy. The explanatory, predictive, and control phases may not be developed unless the foundations are systematically built and scientifically tested in the empirical world.[1] Herein lies the urgency for the exploration of empathy in nurse-client interaction --the promise to gain nursing knowledge, to add to nursing theory development, and ultimately to influence the course of professional development.

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[1]Peggy L. Chinn and Maeona K. Jacobs, "Theory Development in Nursing," Tape Series, Nursing Sciences Tape Library, Texas Woman's University, Denton, Texas (1975), section VI, p. 6.

CHAPTER II

RÉSUMÉ OF PRESENT KNOWLEDGE

The résumé of present knowledge will include: (1) the evolution of the research problem, (2) a report of previous findings, (3) a review of the related literature, (4) the relation of the proposed study to previous research, and (5) a statement of the Theoretical Framework including a model representation.

Evolution of the Research Problem

From the early sixties evidence exists to support the conclusion that empathy is the most important basis for a helping relationship.[1] Unfortunately, there is also evidence through research completed in the middle and late sixties that empathic abilities are lacking among professionals in helping fields as well as in lay individuals. In their recent book Carkhuff and Berenson indicated that:

> there is an extensive body of evidence suggesting that all human interactions between persons designated by society as "more knowing" and "less knowing" may have facilitative or retarding effects upon the "less knowing" and furthermore that the

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[1] Rogers, On Becoming a Person, p. 284; Carkhuff, Helping and Human Relations, 2:83.

> "more knowing," while seemingly incorporating the notion of providing human nourishment, have obviously left their principal functions undischarged. They have left their "less knowing" counterparts impotent and unfulfilled. They have ceded their own special voids to their children, students, and partners, for they have very little to offer.[1]

Nurses were not evaluated as a part of the above study. A study by Duff and Hollingshead in 1968 spoke to the impersonality of care of patients by nurses. This was established by interview of nursing personnel after discharge of patients.[2] Sydney Jourard wrote of the lack of "interpersonal competence" and impersonal nursing which resulted in "stranger doing things to strangers." He made a case for a general nursing practitioner whose goal would be:

> empathic contact with anybody who is sick, whether White or Negro, young or old, Protestant or Catholic, moral or immoral. If she cannot immediately understand this very patient, she strives to learn his language, his view of the world, his values, his wants, so that she can then care for him. She cares about people, not just one segment of the population, and she wants to know them, help them, and be an effective agent in their recovery toward comfort and wellness.[3]

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[1]Robert R. Carkhuff and Bernard Berenson, Beyond Counseling and Therapy (New York: Holt, Rinehart, and Winston, 1967), pp. 3-4.

[2]Raymond S. Duff and August B. Hollingshead, Sickness and Society (New York: Harper and Row, 1968), pp. 227-29.

[3]Sidney M. Jourard, The Transparent Self (New York: D. Van Nostrand Company, 1964), pp. 177-207.

In spite of the writings of the last three authors, the question remains. Is this an accurate representation of what is true of nurses in relationship to empathy? It would be difficult to answer without reliable data.

Report of Previous Findings

The library search for previous findings of research revealed one study of empathy in relation to the practice of nursing. Elaine Mansfield in her dissertation identified verbal and nonverbal behavior that facilitate empathic communication in initial interactions between an experienced psychiatric nurse and a psychiatric patient using a video tape of the interaction.[1]

Review of the Related Literature

The review of related literature was organized around three areas of concern. The first was on the nature of empathy; the second was the area of relationship between empathy and effectiveness as a therapeutic agent; and the third was on the measurement tools for empathy.

The Nature of Empathy

On the nature of empathy Edith Stein in On the Problem of Empathy through a process of phenomenological

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[1]Elaine Mansfield, "Empathy: Concept and Identified Psychiatric Nursing Behavior," Nursing Research 22 (1973): 525-29.

reduction arrived at a definition of the essence of acts of empathy. Her conclusion was that empathy is not perception, representation, nor a neutral positing, but "sui generis." It is an experience of being led by the foreign experience and takes place in three steps as follows:

1. the emergence of the experience,
2. the fulfilling explication, and
3. the comprehensive objectification of the explained experience.[1]

As a result of observation and evaluation of "therapist offered conditions" which are facilitative to client growth, Carl Rogers has the following to say about empathy:

> To sense the client's private world as if it were your own, but without ever losing the "as if" quality--this is empathy, and this seems essential to therapy. To sense the client's anger, fear, or confusion as if it were your own, yet without your own anger, fear or confusion getting bound up in it, is the condition we are endeavoring to describe. When the client's world is this clear to the therapist, and he moves about in it freely, then he can both communicate his understanding of what is clearly known to the client and can also voice meanings in the client's experience of which the client is scarcely aware.[2]

Loretta Zderad worked through the development of a comprehensive concept of empathy. She developed the concept

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[1]Edith Stein, On the Problem of Empathy (The Hague: Martinus Nijhoff, 1970), pp. xiv.

[2]Carl Rogers, "Necessary and Sufficient Conditions of Therapeutic Personality Change," Journal of Consulting Psychology 21 (1957): 95-103.

as a psychological process, a physiological response, and in the area of interpersonal empathy, as a kind of social relating.[1] There are many areas of disagreement between the description of the concept to that of others, particularly Stein's. However, in the interest of examining all possible definitions to delimit the boundaries of the proposed study, this review was important.

Another work which fell in the same category as that of Zderad was Virginia Ehmann's Empathy: Its Origin, Characteristics, and Process. She enlarged on the understanding of the concept by illustrating its use as a therapeutic tool.[2]

An esthetic component of empathy is defined by Vernon Lee and Theodore Lipps as the capacity for participating in or vicariously experiencing another's feelings.[3] One gains knowledge of a particular felt experience through empathic acquaintance or attendance to our perception of

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[1]Loretta Zderad, "A Concept of Empathy" (Ph.D. dissertation, Georgetown University, 1968).

[2]Virginia Ehmann, "Empathy; Its Origin, Characteristics, and Process," Perspectives in Psychiatric Care 9 (1971): 72.

[3]Theodore Lipps, "Empathy, Inner Imitation and Sense-Feeling," in A Modern Book of Esthetics, 3rd ed., ed. Melvin Rader (New York: Holt, Rinehart, and Winston, 1960), pp. 370-76; and Vernon Lee, "Empathy," in A Modern Book of Esthetics, 3rd ed., ed. Melvin Rader (New York: Holt, Rinehart, and Winston, 1960), pp. 377-82.

others. All the arts--not simply poetry--cultivate this empathic sensitivity. "Empathy," in this broad sense, still retains meaning for art, in characterizing not only the beholder but also the creator of the work of art.[1]

Carper designated four fundamental patterns of knowing in nursing as: (1) empirics, the science of nursing; (2) esthetics, the art of nursing; (3) the component of personal knowledge in nursing; and (4) ethics, the component of moral knowledge. She summarized that each of the four fundamental patterns of knowing may be conceived as necessary for the development of mastery in nursing.[2] The exploration of empathy as a method in the esthetic pattern of knowing adds to the appreciation of the nature of empathy.

Feldman also describes empathy as an element in the process of learning the language of art. He maintains that empathy explains how one gets involved with a work of art. It is a process of feeling into, of being "turned on" not only with our minds and emotions but also with our bodies

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[1]Melvin Rader, ed., "Introduction: The Creative Process," A Modern Book of Esthetics, 4th ed. (New York: Holt, Rinehart, and Winston, 1973), p. 12.

[2]Barbara Anne Carper, "Fundamental Patterns of Knowing in Nursing" (Ed.D. dissertation, Columbia University, 1975).

and senses. It would appear this esthetic component of empathy has implications to the learning of the art of nursing as differentiated from the science of nursing.[1] It may also be that this aspect of the empathic response is the source of observable empirical referrents of empathy as illustrated by Mansfield.[2]

Relationship Between Empathy and Effectiveness

On the relationship between empathy and effectiveness as a therapeutic agent, the theoretical formulations of Sullivan,[3] Rogers,[4] Fiedler,[5] and Fromm-Reichman[6] supported the essentiality of empathy in the helping relationship. The research of Truax indicated that the subjects of high level empathy helpers improved significantly more

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[1]Edmund Burke Feldman, Becoming Human Through Art (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970), pp. 289-91.

[2]Mansfield, "Empathy," pp. 525-29.

[3]Harry S. Sullivan, Conceptions of Modern Psychiatry (New York: W. W. Norton and Company, 1940), p. 41.

[4]Carl R. Rogers, Client Centered Therapy (Boston: Houghton Mifflin Company, 1951), p. 349.

[5]F. E. Fiedler, "Concept of an Ideal Therapeutic Relationship," Journal of Consulting Psychology 14 (1950): 239.

[6]Freida Fromm-Reichman, Psychoanalysis and Psychotherapy, ed. Dexter M. Bullard (Chicago: University of Chicago Press, 1959), pp. 126-34.

than did the subjects of low empathy helpers as measured by a variety of indices.[1] Studies of patient outcomes revealed that highly empathic therapists had a significantly higher rate of success with their patients.[2]

Measurement Tools for Empathy

Concerning measurement tools for empathy, Dymond in 1949 constructed a scale for the measurement of accuracy of the subjects' empathy. Her scale had four parts dealing with the following six characteristics: (1) self confidence, (2) superiority-inferiority, (3) selfishness-unselfishness, (4) friendliness-unfriendliness, (5) leader-follower, and (6) sense of humor-lack of sense of humor. The Rating Test required that an individual take the role of others or empathize with them in order to see himself

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[1]C. B. Truax and Others, "Therapist Empathy, Genuineness, and Warmth, and Patient Therapeutic Outcome," Journal of Consulting Psychology 30 (October 1968): 395; and C. B. Truax, Robert Carkhuff, and F. Kodman, "Relationships Between Therapist-Offered Conditions and Patient Change in Group Psychotherapy," Journal of Clinical Psychology 21 (July 1965): 327.

[2]Rogers, "Unnecessary and Sufficient Conditions of Therapeutic Personality Change," pp. 95-103; Rogers, Client Centered Therapy, p. 340; Fromm-Reichman, Psychoanalysis and Psychotherapy, pp. 126-34; Truax, "Therapist Empathy, Genuineness, and Warmth, and Patient Therapeutic Outcome," pp. 395-401; and Truax, Carkhuff, and Kodman, "Relationship Between Therapist-Offered Conditions and Patient Change in Group Psychotherapy," pp. 327-29.

as others see him and in order to see others as they see themselves.[1]

Truax defined nine degrees of accurate empathy ranging from low level to high. At the low level the therapist could demonstrate disinterest or misinterpretation of the feelings of the patient. At the high level of accurate empathy the message "I am with you" was communicated by the therapist's appropriate language and voice tones. This scale has been utilized with tape recorded interviews, motion pictures, videotape recordings, live observations, and transcripts of psychotherapy interactions.[2]

Guerney, Stover, and DeMerritt measured empathy from direct observations of the behavior of mothers toward their child in unstructured play. Observers' empathy ratings were compared with coded empathic verbal behavior from the tape recordings of the play sessions. A strong positive correlation was found between the two which

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[1]Rosalind F. Dymond, "A Scale for Measurement of Empathic Ability," Journal of Consulting Psychology 13 (1949): 127.

[2]Charles B. Truax, "A Scale for the Measurement of Accurate Empathy," The Psychiatric Institute Bulletin 1 (September 1961): 1.

indicated that it was possible to effectively measure empathy from direct observation.[1]

In 1966 three doctoral dissertations dealt with the measurement of empathy. The study of Chapman was to develop and validate an instrument that tested a subject's ability to identify the emotion or emotions expressed by another in a series of videotaped excerpts from actual counseling interviews.[2] The purpose of Myers' study was to determine whether the provision of selected learning experiences would increase empathy in social work students.[3] The investigation of a formulation which attempted to organize the content and process of empathic functioning in clinical practice was conducted by Lide.[4]

Robert R. Carkhuff devised a five-point scale for measurement of empathic understanding in interpersonal

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[1]Bernard Guerney, Lillian Stover, and Stephen DeMerritt, "A Measurement of Empathy in Parent-Child Interactions," Journal of Genetic Psychology 62 (1968): 49.

[2]James Chapman, "The Development and Validation of a Scale to Measure Empathy," Dissertation Abstracts 27 (1966): 1650.

[3]Clara Myers, "An Experiment in the Development and Measurement of Empathy in Social Work Students," Dissertation Abstracts 27 (1966): 1716.

[4]Pauline Durant Lide, "An Experimental Study of Empathic Functioning," Dissertation Abstracts 27 (1966): 2123.

processes.[1] This scale was derived in part from the work of C. B. Truax,[2] which had been validated in extensive process and outcome research on counseling and psychotherapy, and in part from an earlier version which was validated by Carkhuff and Berenson in 1967.[3]

David S. Hargrove reported the successful use of the Lister Scale[4] for the measurement of empathic understanding in his study of response of therapists.[5]

Hogan devised an empirically keyed empathy scale whose primary validity was apparently established.[6] At the first level, validity was defined in terms of how well a scale predicts the criteria originally set for it. The

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[1]Robert R. Carkhuff, Helping and Human Relations, vol. 1: Selection and Training (New York: Holt, Rinehart, and Winston, 1969), p. 174.

[2]Charles Truax and R. R. Carkhuff, Toward Effective Counseling and Psychotherapy (Chicago: Aldine Publishing Company, 1967), p. 151.

[3]Carkhuff and Berenson, Beyond Counseling and Therapy, p. 277.

[4]J. L. Lister, "A Scale for the Measurement of Empathic Understanding" (manuscript, University of Florida, 1970).

[5]David S. Hargrove, "Verbal Interaction Analysis of Empathic and Non Empathic Responses of Therapists," Journal of Clinical Psychology 42 (1974): 305.

[6]Robert Hogan, "Development of an Empathy Scale," Journal of Consulting and Clinical Psychology 33 (1969): 307.

items on the scale were sorted into three factors: tolerant, even-tempered disposition; ascendant, sociable interpersonal style; and humanistic sociopolitical attitudes. With regard to C.P.I., the scale was most closely related to the factor labeled interpersonal adequacy. In subsequent study Grief and Hogan discussed the secondary validity. The conclusion was that evidence available to support the primary and secondary validity of the scale was sufficient for its use.[1] Farrokh and Hekmat identified differences in empathy among professional members of a psychiatric team and the effect of residency experience on the development of empathy.[2]

Dr. Beatrice J. Kalisch provided some findings in terms of students and empathic ability after empathy training. She found that students who underwent the experimental treatment improved significantly. These gains were largely maintained by the experimental groups on the six-week follow-up test whereas the control groups made non-significant gains. These experimental subjects viewed

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[1]H. G. Gough, "Conceptual Analysis of Psychological Test Scores and Other Diagnostic Variables," Journal of Abnormal Psychology 70 (1965): 294; and H. G. Gough, Manual for the California Psychological Inventory, rev. ed. (Palo Alto, California: Consulting Psychologists Press, 1969).

[2]Khajavi Farrokh and Hamid Hekmat, "A Comparative Study of Empathy," Archives of General Psychiatry 25 (December 1971): 490.

themselves as more empathic following the treatment period.[1] Ratings before and after training were measured by the nine-point Accurate Empathy Scale devised by Charles Truax. The highest level (9) denotes a helper who "unerringly responds to the client's full range of feelings in their exact intensity" and the lowest level (1) denotes a helper who "seems completely unaware of even the most conspicuous of the client's statements."[2]

Relation of the Proposed Study to Previous Research

The literature was reviewed in three areas to delimit the scope of the proposed study. In the first area the nature of empathy was examined; particularly, interactive empathy, with which persons in a helping profession are especially concerned. Predictive empathy was not reviewed inasmuch as studies based on scales for predictive empathy have met with much criticism in the literature.[3]

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[1]Beatrice J. Kalisch, "Experiment in the Development of Empathy in Nursing Students," Nursing Research 20 (May-June 1971): 202.

[2]Truax, "A Scale," p. 12.

[3]June Chance and W. Meadors, "Needs and Interpersonal Perception," Journal of Personality 28 (1960): 200; Rosalind Dymond, "A Preliminary Investigation of the Relation of Insight and Empathy," Journal of Consulting Psychology 12 (1948): 228; and Dymond, "A Scale for the Measurement of Empathic Ability," p. 127.

This first area of review led to the definition of empathy which will be used in the proposed study.

The second area of review speaks to the importance of empathy in helping another person. It was shown that psychoanalytic, client-centered, and other psychological theorists agreed that empathy is necessary for facilitating growth in another human being. This belief was supported by research in many disciplines except for nursing. The Duff and Hollingshead and the Jourard studies were based on superficial observations which lacked definition about what actually was studied. It becomes very clear that more reliable data is needed about the empathic ability of nurses. The Kalisch experiment involved students of nursing. Its results indicated that empathic ability could be increased in students. This certainly has implications for practitioners of nursing, especially if it is established that after experience over time the level is either increased or decreased.

The third area on measurement tools for empathy revealed an increasing interest in measurement and therefore current unfolding of new instruments. The decision for instrumentation will be based on selection of tools which have proven validity and reliability. This is

especially important in virgin territory where measurement has not been carried out before.

Statement of the Theoretical Framework

Carl Rogers' theories of personality and psychotherapy form the theoretical framework for this study. According to Rogers' theoretical formulations about self, experiences are perceived as threatening if they are inconsistent to the self. Under facilitative conditions offered by a helping person, the individual may perceive, examine, and internalize the previously inconsistent experiences. The most critical component of the therapeutic interaction is empathy.[1] Specifically, therapists offering high levels of empathy effect positive outcomes, while therapists offering low levels of empathy contribute to the retardation of the client's condition.[2] A model of the framework is presented in figure 1.

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[1]Rogers, On Becoming a Person, p. 284.

[2]Carkhuff and Berenson, Beyond Counseling and Therapy, p. 4.

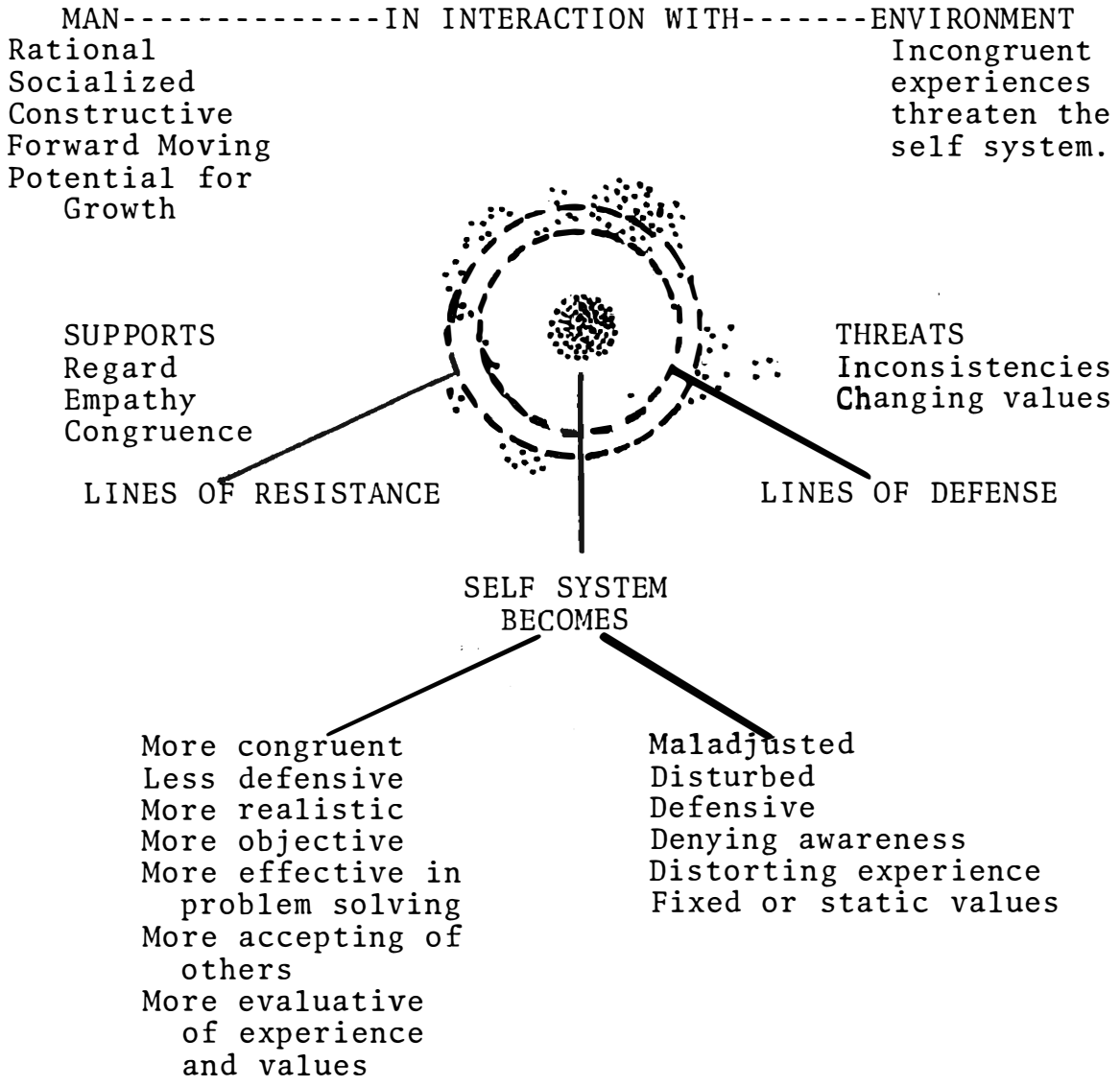

Fig. 1. Model of Theoretical Framework

SOURCE: Rogers, Client Centered Therapy, pp. 481-524.

CHAPTER III

SPECIFICS OF THE STUDY

General Aim of the Study

As a result of the scarcity of knowledge about empathy and the professional nurse in practice, this study proposed (1) to assess empathic levels at which professional nurses function in interaction with clients; (2) to investigate the relationship between empathic ability and client perception of nurse empathy; and (3) to test for predictive relationship between selected demographic variables and empathic ability. The general research aim is descriptive: to discover new facts and to gather exploratory data as a prelude for further research. Consideration of the concepts of empathic ability, client perception of empathy, professional nurse, and nurse-client interaction suggested several hypotheses to be tested.

Hypotheses

The following null hypotheses were identified and tested:

1. There is no significant relationship between interactive empathic ability of professional nurses and

selected demographic variables of age; marital status; parenthood; education; length, level, and area of practice.

2. There is no significant relationship between interactive empathic ability of the professional nurse and the nurse-patient interaction outcome.

3. There will be no significant predictive relationship detected between interactive empathic ability (dependent variable) and age; education; length of practice; and client perception of nurse empathy as independent variables when a stepwise multi-linear regression model is built.

Dependent and Independent Variables

The dependent variable of this study is the empathic ability of the professional nurse. The independent variables are the selected variables of (1) age, (2) marital status, (3) parenthood, (4) level of nursing education, (5) length of practice, (6) level of practice, and (7) area of practice.

Definition of Terms

For the purpose of this study, the following definitions are used:

Interactive empathic ability was defined operationally as used in the Hogan Scale for measurement of

empathy.[1] Empathy, empathic understanding, empathic communication, and empathic discrimination are used interchangeably and are defined as the intrapersonal response to the expressed "foreign experience" of another, and the interpersonal exploration, understanding, and ultimate action toward human growth of each member of the interaction.

Professional nurse for purposes of this study was defined as any nurse who is licensed to practice professional nursing irrespective of the basic or advanced program of education which she has accomplished--whether diploma, associate of arts degree, baccalaureate degree program, or higher degree at the level of master's or above.

Nurse patient interaction outcomes were defined operationally as measured by the Barrett-Lennard Relationship Inventory. The Barrett-Lennard Relationship Inventory measures the patients' perceptions of their therapist's level of empathic understanding, level of regard, and unconditionality of regard, and congruence.[2]

Selected demographic variables were defined as those attributes of the nurse as assessed on the Personal

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[1]Hogan, "Development of an Empathy Scale," p. 307.

[2]G. T. Barrett-Lennard, "Dimensions of Therapist Response as Causal Factors in Therapeutic Change," Psychological Monographs 76 (1967).

Information Form in Appendix B. They include age; marital status; number of children; education; and length, level, and area of practice.

Basic Assumptions

For the purpose of this study, the following assumptions were made:

1. All interactive processes may have constructive or destructive outcomes.

2. Constructive or destructive consequences of the helping process may be accounted for in part by the level of functioning of the helper.

3. An essential quality of the helping process between the nurse and patient is the nurse's interactive empathy for the patient.

4. Each individual expresses a degree of empathy irrespective of role, time, situation, or education.

5. It is possible to measure each nurse's degree of empathic ability.

6. It is the experience that the patient perceives which affects him directly.[1]

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[1]Ibid., p. 2.

Limitations

This study was subjected to the following limitations:

1. The study was limited to nurses in one geographic area. Thus, the conclusions of this research apply only to these nurses.

2. Predictive empathy was knowingly eliminated from consideration and interactive empathy was the dependent variable of the study.

CHAPTER IV

METHODOLOGY

The methodology of this research will be presented under the following headings: (1) Overview; (2) Consultation Committee; (3) Delimitations; (4) Research Setting and Sample; (5) Method of Data Collection; (6) Instruments to be Used; (7) Ethical Considerations; (8) Pilot Study; and (9) Analysis of the Data.

Overview

The purpose of this exploratory research was the establishment of a data base to determine the level of interactive empathy which nurses demonstrate as they interact with clients. The general design was determined by the desire to test for significant difference in empathic ability between nurses who are grouped according to age, marital status, parenthood, educational preparation, length of practice, level of practice, and area of practice.

A second aim, which also guided the design, was the investigation of the relationship between interactive empathic ability, as measured by Hogan's Empathy Scale, and the patient's perception about the empathic ability of

the nurse, as measured by the Barrett-Lennard Relationship Inventory. A schematic presentation of this design is shown in figure 2.

This study combined explanatory as well as descriptive purposes. The descriptive studies are primarily concerned with obtaining accurate and meaningful descriptions of the phenomena under study; while the explanatory studies are concerned with relationships among two or more variables.[1] Exploration of selected variables and the two criterion measures were expected to produce information which would lend itself to analysis and ultimately to extension of empirical knowledge about the phenomenon of empathy in relation to nursing. The cost of the study is presented in appendix B.

Consultation Committee

A consultation committee guided the conceptual and empirical development and the interpretation and reporting of this research study. Members of the committee and the nature of each respective contribution were as follows:

1. Dr. Peggy Chinn--guidance toward conceptual clarity and a scholarly result.

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[1]Faye G. Abdellah and Eugene Levine, Better Patient Care Through Nursing Research (New York: The Macmillan Company, 1965), pp. 426-27.

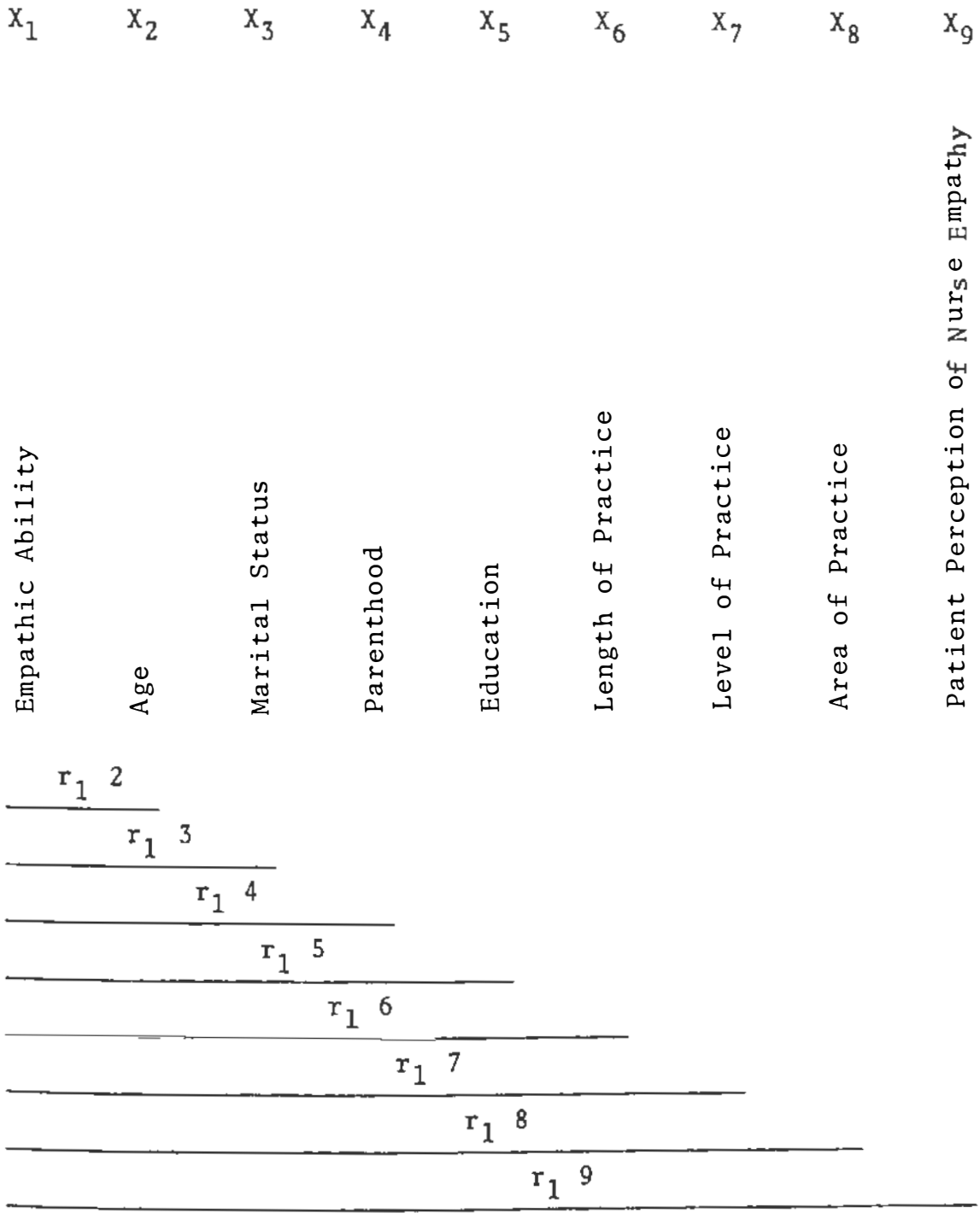

Fig. 2. Schematic of the Research Design for Correlation.

2. Dr. Floris E. King--guidance with the research process.

3. Dr. Elaine Mansfield--assistance through sharing clinical expertise and prior research experience in the study of empathy as a behavioral component of nurse-client interaction.

4. Dr. Robert Littlefield--critical review and valuable suggestions.

5. Dr. Bettye Myers--careful review and constructive suggestions.

6. Dr. Basil Hamilton--assistance with statistical analysis of the data.

7. Dr. Robert Hogan--telephone consultation in reference to the use, scoring, and interpretation of the Hogan Empathy Scale.

8. Dr. Beatrice Kalisch--telephone consultation in reference to the use and scoring of the Barrett-Lennard Relationship Inventory.

Delimitations of the Study

Potential pitfalls in the methodology were recognized and accepted as conditions under which the study must be implemented. These were identified in three areas as follows: (1) The sample was limited to seventy nurses in two states

of the Central Midwest. Thus, the conclusions of this research will apply only to these subjects. (2) The study was further limited to the empathic ability of professional nurses as the dependent variable; and selected variables of age, marital status, parenthood, educational level, length of practice, level of practice, and area of practice as the independent variables. Predictive empathy, sex, and the sub-professional nurse (aide or the licensed practical nurse) were excluded as variables in this study by design. (3) The research instruments imposed further limitations. The measurement of interactive empathy of the nurse was limited to written response to the thirty-nine items of the Hogan Empathy Scale. Permission for use of twenty-five MMPI items was not received as requested. By recommendation of Dr. R. Hogan, these items were knowingly excluded. Validity and reliability has been established both with and without the MMPI items. The alternative to this decision would have been to administer the MMPI in its entirety. In terms of time, cost, and acceptability by nurses this was not feasible. Excluded also from consideration was participant observation of empirical referrents of empathy in nurse-client interaction. This final restriction was imposed by both facilities where the study was implemented in deference to the Privacy Act of 1974.

Research Setting and Sample

The setting for this research study was an 800 bed federally operated hospital and a 930 bed community general hospital in two states in the Central Midwest. Both hospitals are located in large metropolitan cities of over 250,000 population. They are primarily farming, oil, cattle, and horse ranching country with major aircraft industry and commerce. Each city has at the least three major universities and four large hospitals. Nurses for the many hospitals have been recruited from many areas in the United States since there are many educational and cultural inducements and a high degree of population mobility due to the presence of major aircraft and other industry. As a result, there is great variety in the preparation and socialization of the nurses. The selected hospitals provide all medical, surgical, and psychiatric services as well as special intensive care unit services.

The nursing service department of each facility offers a sufficiently large number of nurses at various levels of practice to assure a diverse representation in the sample. For example, the community general hospital lists 369 nurses as employees. Among these are 17 supervisors, 18 head nurses, and 331 staff nurses. The federally funded facility employs 258 nurses. Of this

number 12 are supervisors, 16 are head nurses, 220 are staff nurses, and three are clinical specialists.

Method of Data Collection

The protocol for selecting subjects proceeded according to the plan made collaboratively with nursing service personnel. Permission to carry out the research study was granted by the Administrator, Director of Nursing Service, and by the Chairman of the Medical Research Committee of the community general hospital in July, 1976. The plan of the research and schedules were presented to the administrative nurses at a meeting on September 22, 1976. Personnel of the Behavioral Sciences Subcommittee and the Research and Education Committee at the federal facility granted permission to carry out the research study in September, 1976 and the plan of the research and schedules were presented to the head nurses at a special meeting on October 7, 1976.

At these specially arranged head nurses' meetings, methods and procedures were carefully explained. The agency permission, approval of investigation form, the description of background information required, the selected instruments for both the nurse and client interview, and the consent forms for both groups (nurse and client) were discussed. Opportunity for clarification and questioning were provided

and the head nurses were requested to represent the study to their respective staff nurses and ask for volunteers.

The volunteer nurse subjects were contacted by the researcher according to an agreed upon schedule. They were individually asked to read and sign the written consent form before participation. The consent reinforced the orientation information given by the head nurse since it included a precise description of the research procedure, the possible risks or discomforts, and the expected benefits of the study. Seventy nurses from the day tour of duty volunteered and were accepted into the sample. Seventy client subjects were accepted through referral by each of the nurse subjects. In the community hospital permission from each client subject's physician was obtained verbally or written as a doctor's order on the clinical chart or as a note on the researcher's written request for consent. To insure that nursing care to clients would not be interrupted, nurses in the emergency room, intensive care units, and the operating room were excluded from this study. Pediatric units were excluded to avoid involvement of minors. The clients were individually and personally given all the orienting information by the researcher. They were asked to read the consent form before signing and thus the verbal information they were given was reinforced by the

written. The research instrument was completed immediately in the presence of the researcher for both the nurse and the client subjects. Each form was assigned a code number prior to collection of data. This code number was the only identification to appear on the data-collection instruments. All signed consent forms were filed separately; and master lists identifying subjects' names and corresponding code numbers were destroyed upon completion of data collection. Data received about nurses on the Personal Information Forms and scores from the Hogan Empathy Scale and Barrett-Lennard Relationship Inventory administered to seventy nurses and seventy clients respectively were scored, coded, and key punched onto data-processing cards. After completion of data collection, in response to numerous requests of the nurse subjects in both facilities, interactive empathy scores were shared with the nurse subjects. These scores were posted on each unit utilizing identifying code numbers known individually to each participating nurse. Along with the scores was posted Hogan's description of the highly empathic man and an interpretation of the scores as upper, middle, and low empathy level as arbitrarily set by the researcher. A copy of the memo to participating nurses of each facility is presented in appendix B.

Research Instruments

The instruments utilized in this study were (1) The Hogan Empathy Scale and (2) The Barrett-Lennard Relationship Inventory. In this section, a description of each research measure will be presented along with methods of scoring the tests and information about their reliability and validity.

The Hogan Empathy Scale

Hogan's thirty-nine item Empathy Scale was used as a measure of interactive empathy. The extensive research on the construction and empirical validation of this scale was conducted at the Institute of Personality Assessment and Research of the University of California at Berkeley and was reported by Hogan.[1] At the beginning of the construction of the scale, an empathy criterion was developed. The Q-sort descriptions of the highly empathic man, furnished by various experts, were intercorrelated resulting in a mean correlation coefficient of 0.71. The estimated reliability of this composite was 0.94.

After developing a criterion for assessing empathy, evidence was gathered for evaluating the ratings. The

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[1]Hogan, "Development of an Empathy Scale," p. 307.

ratings were then used to define the high and the low empathic individuals. Finally, an item analysis was conducted to select items for a scale which would discriminate between nominated groups. Hogan's empirical works demonstrated that when this scale was administered to predict Q-sort derived empathy ratings of individuals (N-211), the average correlation between the scale and empathy ratings was 0.62.

When college undergraduates were given two successive administrations of the same scale within a two-month interval, a reliability coefficient of 0.84 was obtained. Hogan's scale then appeared to be the most carefully constructed scale and highly suitable as a candid assessor of empathy.

Further empirical checks on the interpersonal meaning of this scale also were reported by Hogan. A group of 103 students was asked to describe the behavior of high and low empathy scorers. The high scorers were described as pleasant, charming, friendly, dreamy, cheerful, sociable, sentimental, imaginative, discreet, and tactful. The low scorers on the other hand were described as cruel, cold, quarrelsome, hostile, bitter, unemotional, unkind, hard-hearted, argumentative, and opinionated. Thus, empirical support was provided that individuals scoring high on this

scale were likeable, warm, and much at ease in interpersonal relationships, while those scoring low were aloof, disaffected, and disposed to alienate persons around them. Within this framework, an empathic individual (defined operationally by his high scores on Hogan's scale) is one who possesses a keen insight, imaginative perceptiveness, and social acuity about the other person. He is thus not only aware of his own motives and the impressions that he makes on others, but also he is socially skilled and perceptive of a wide range of interpersonal cues in human relationships.

Barrett-Lennard Relationship Inventory

Barrett-Lennard constructed the Relationship Inventory to measure the client's perceptions of their helper's level of empathic understanding, level of regard, unconditionality of regard, and congruence.[1] His basic assumption was that "it is what the client himself experiences which affects him directly."[2] Utilizing Rogers' theory of the "necessary and sufficient conditions of effective personality

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[1]G. T. Barrett-Lennard, "Dimensions of Perceived Therapist Response Related to Therapeutic Change" (Ph.D dissertation, University of Chicago, 1959).

[2]Barrett-Lennard, "Dimensions of Therapist Response as Causal Factors in Therapeutic Change," p. 2.

change,"[1] Barrett-Lennard developed a sixty-four item instrument yielding measures of the conditions as experienced to a greater or lesser degree by the client in relation to each of the four variables.

For the present study, the major focus of concern was on the scale for the measurement of empathic understanding. A total of thirty-two items from the empathy and regard scale was used. Only the sixteen empathy items were scored. The patient filled out the inventory based on contact with the nurse helper of at least three interactions. A copy of the client form is presented in appendix B.

The instrument was scored according to instructions given by Barrett-Lennard.[2] This involves a face-value weighting of the numerical answer categories. Each answer either detracts or adds to the total score which yields a possible scoring range of -3n to +3n for each item. Thus for the empathic scale the possible range is -48 to +48; however, the typical range reported by Barrett-Lennard was -10 to +41.[3]

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[1]Rogers, "Necessary and Sufficient Conditions."

[2]Barrett-Lennard, "Dimensions of Therapist Response as Causal Factors in Therapeutic Change," p. 7.

[3]Ibid., p. 10.

Validity. The validity of the Relationship Inventory is based on the evidence available which indicates that this instrument is measuring an important aspect or characteristic of the helping relationship. Barrett-Lennard asked forty-two patients in the counseling center at the University of Chicago to complete the inventory in reporting their views of their therapist while their twenty-one individual therapists filled out the inventory in reporting the level of therapeutic conditions offered by the therapist as perceived by the therapist himself. Results of the study indicated that patients' perceptions of levels of conditions offered were better indices of change than were therapists' perceptions and, in addition, those patients who eventually showed the most therapeutic change were more accurate in their perceptions of their relationship with the therapist.[1] Truax and others found that perceptions of juvenile delinquents,[2] out-patients in

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[1] Ibid.

[2] C. Truax, D. G. Wargo, R. R. Carkhuff, B. T. Tunnell, and A. W. Glenn, "Client's Perception of Therapist Empathy, Warmth, and Genuineness and Therapeutic Outcome in Group Counseling with Juvenile Delinquents" (unpublished manuscript, Arkansas Rehabilitation Research and Training Center, University of Arkansas, Fayetteville, 1966).

psychotherapy,[1] and vocational rehabilitation clients[2] were significantly correlated with indices of improvement. Feitel discovered a significant correlation between the Barrett-Lennard subscales of empathic understanding, regard, and unconditionality of regard and outcome ratings on patients.[3] These studies suggest that the Relationship Inventory is measuring an important element of the helping relationship.

Reliability. To answer the question of reliability, Barrett-Lennard calculated a corrected split-half reliability coefficient (the Spearman Brown formula) of the Relationship Inventory for an N of forty-two. The correlations found were: empathic understanding, .86; level of regard, .93; congruence, .89; and unconditionality of regard, .82.[4]

[1]C. Truax, D. G. Wargo, B. T. Tunnell, and A. W. Glenn, "Patient Perception of Therapist Empathy, Warmth, and Genuineness and Therapeutic Outcome in Outpatient Group Therapy" (unpublished manuscript, Arkansas Rehabilitation Research and Training Center, University of Arkansas, Fayetteville, 1966).

[2]C. Truax et al., "Empathy, Warmth, and Genuineness and Progress in Vocational Rehabilitation" (unpublished manuscript, Arkansas Rehabilitation Research and Training Center, University of Arkansas, Fayetteville, 1966).

[3]Barbara Feitel, "Feeling Understood as a Function of a Variety of Therapist Activity" (Ed.D. dissertation, Columbia University, 1968).

[4]Barrett-Lennard, "Dimensions of Therapist Response as Causal Factors in Therapeutic Change," p. 12.

Ethical Considerations

This study was guided by both ethical and legal considerations. Protection of the interests of the subjects, the supporting facilities, and the researcher were incorporated. Free and informed consent; confidentiality of identity and information; protection of the research subjects against deliberate physical, mental, and emotional injury; and provision of a researcher with knowledge and skill compatible with the demands of the investigation were safeguards incorporated in this study.[1] Agency permission was sought and the plan and schedules of the research were presented through appropriate channels. Written informed consent was requested as the subjects volunteered and before they filled out a brief information sheet. Copies of the completed agency permission, approval of investigation, and subject consent forms are presented in appendix A. Participants also were instructed that the study sought to measure certain attitudes, abilities, and values held by professional nurses as they interact with patients. They were made aware of the significance of the research as well as their ability to withdraw from the

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[1]Ruth C. MacKay and John A. Soule, "Nurses as Investigators: Some Ethical and Legal Issues," The Canadian Nurse, September 1975, pp. 25-29; and Ethical Principles in the Conduct of Research with Human Participants (Washington, D.C.: American Psychological Association, Inc., 1973.

study at any point without penalty. Methods and procedures were carefully explained and a schedule for sharing the outcome of the study was planned with the participants. As was indicated in the Method of Data Collection section, after data collection was completed, empathy scores were shared with all nurse participants in response to frequently expressed interest. A copy of the completed study was given to each agency as well as verbal reports to units where this was requested.

Pilot Study

A pilot study was conducted to establish the feasibility of the research proposal. The pre-test was designed to fulfill the following three purposes: (1) development of procedural proficiency; (2) identification of problems inherent in administration of the measurement tools of the study; and (3) decision making in regard to the major research effort.

The specific objectives for the pilot were accomplished. As a consequence, procedural proficiency increased, administrative problems were identified, and measures were taken to avoid probable barriers or delays. Alterations of the initial method and design incorporated in this research also were determined in part by the pilot. Measurement tools were selected as identified in the Research

Instruments section. An abstract of the pilot study is presented in appendix B.

Analysis of the Data

The initial analysis addressed the data obtained from all independent variables (age; marital status; parenthood; education; length, level, and area of practice), and their respective relationship to the empathic ability of each of the study participants. Further analysis was directed to the various measurement data to determine the relationship between the perception of the client and the level of empathy of the nurse.

Descriptive statistical analysis included the following:

1. Frequency, mean, range, and standard deviation were computed for the criterion scores of the participants, both nurses and clients.

2. Appropriate correlational statistical analysis was utilized to determine if a relationship exists between (a) level of empathic ability and each of the independent variables of age; marital status; parenthood; education; and length, level, and area of practice; and (b) the patient's perception of nurse empathy and the empathic ability score of the nurse.

3. Comparative statistical analysis was utilized to examine the groups formed by division of the nurses by selected demographic variables of age; marital status; education; parenthood; and length, level, and area of practice.

4. A stepwise multilinear regression model was built using age, marital status, parenthood, education, length of practice, level of practice, and area of practice as predictor variables and empathic ability as the dependent variable for the purpose of testing for significant predictive relationship.

5. Results of statistical significance were reported at the 0.05 level.

CHAPTER V

RESULTS

Introduction

The results of this study are presented according to the testing of hypotheses in the order of their presentation in preceding chapters. For the testing of Hypothesis I the following areas were examined and are reported: (1) the descriptive statistics of the criterion measurement scores attained by the subject nurses, (2) correlation of the criterion measure with selected demographic variables, and (3) a comparison of demographic subgroups. The test of Hypothesis II involved (1) the description of criterion measures, (2) correlation of criterion measures, and (3) comparison statistics. Testing of Hypothesis III entailed computer stepwise regression analysis of each selected independent variable for predictive correlation with interactive empathic ability.

The adopted level of significance was five percent ($p = 0.05$) and all interpretations of the data reflect this level as the requirement for rejecting the null hypotheses. Each section presents the hypothesis under consideration, the descriptive statistics involved, parametric and non-parametric statistical analyses where appropriate, and

correlations made between the dependent variable, interactive empathic ability, and the selected independent variable under consideration. Tables and illustrations are presented where they contribute to simplification and clarification.

Hypothesis I

There is no significant relationship between interactive empathic ability of professional nurses and selected demographic variables of age; marital status; parenthood; education; length, level, and area of practice.

Descriptive Statistics

When the hypothesis of no significant relationship between interactive empathic ability of professional nurses and selected demographic variables was tested, data were generated about empathy scores and demographic characteristics of the nurse subjects (table 1). Raw data about the seventy nurse subjects' scores on the Hogan Empathy Scale are presented in appendix C. Examination of the scores revealed a mean score of 23.36 with a standard deviation of 4.10 (table 2). An arbitrary division of the scores into Upper (27-39), Middle (14-26), and Lower (0-13) revealed sixteen (23 percent), fifty-three (76 percent), and one (1 percent) in each level respectively. This

TABLE 1

DEMOGRAPHIC CHARACTERISTICS OF THE NURSE SUBJECTS

Characteristics	Number N=70
Age	
20 - 29	21
30 - 39	21
40 - 49	19
50 - 59	9
Marital Status	
Single	8
Married	53
Separated, Widowed, or Divorced	9
Parenthood	
Yes	29
No	41
Education	
Diploma	40
A.A. Degree	8
B.S.N. Degree	22
Length of Practice	
Less than two years	16
2 - 5	12
6 - 10	14
11 - 20	15
21 - 30	13
Level of Practice	
Staff Nurse	54
Head Nurse	16
Area of Practice	
Medical	22
Surgical	17
Psychiatric	12
Rehabilitation	13
Orthopedics	6

classification was used in reporting empathy scores to the nurses in response to requests for feedback.

TABLE 2

SUMMARY OF MEANS AND STANDARD DEVIATIONS FOR THE CONTINUOUS VARIABLES OF THE STUDY (N = 70)

Variable	M	SD
Interactive Empathic Ability	23.35714	4.10385
Age (in months)	435.28571	125.55606
Length of Practice (in years)	10.83929	9.77964
Client Perception of Nurse Empathy	70.64286	12.91560

Figure 3 presents the frequency distribution of empathy scores according to arbitrary level. As shown, the raw data also present a normal distribution. A classification method was determined by using the standard deviation of a normal distribution. The result of this classification methodology is superimposed to the right of the original division and forms the demarkations noted in figure 3. It reveals eleven (13.09 percent) in the upper range; forty-eight (68.27 percent) in the median range; and eleven (13.09 percent) in the lower range.

ARBITRARY DIVISION					STANDARD DEVIATION		
N	%	Scores		f	N	%	
		34	/	1			
		33					
		32	/	1	2	2.15	2SD
		31	/	1			
		30					
		29	//	2			
		28	////	4			
16	23	27	///// //	7	9	13.59	1SD
		26	///// //	7			
		25	///// /	6			
		24	///// //	7	48	68.26	
		23	///// ///	8			
		22	//	2			
		21	///// //	7			
		20	//	2	9	13.59	1SD
		19	/////	5			
		18	///// /	6			
		17	/	1			
		16	/	1	2	2.15	2SD
		15	/	1			
53	76	14					
1	1	13	/	1			
70	100		TOTALS		70	99.74	

Fig. 3. Frequency Distribution of Empathy Scores According to Normal and Arbitrary Division.

Age. There were four age groups (nine year span in each group and total range from 20-59 years). The variable of age was examined in periods of decades beginning with the 20-29 years of age group which is inclusive of the recent nurse graduate and proceeds by decades through the 50-59 years of age group which is inclusive of all the nurses who comprised the sample of this study. The mean empathy scores for each group are presented in table 3. The nurses from 50-59 years of age scored the lowest mean (20.88) on empathic ability, whereas the 30-39 years of age nurse scored the highest (24.05) on this variable.

TABLE 3

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY AGE

Group	Range	Mean	Standard Deviation	Number
20 - 29	13 - 28	23.52381	3.73656	21
30 - 39	16 - 34	24.04762	4.14097	21
40 - 49	18 - 31	23.57895	3.96254	19
50 - 59	15 - 32	20.88889	4.88478	9
Total		23.35714	4.10385	70

Marital status. The marital status variable was initially divided into four groups. When only one subject was recorded for the separated or widowed category, these two categories were collapsed with the divorced category to form three groups. Subsequently, after the analysis of variance was completed, the three groups were collapsed again into married and not-married groups for purposes of Point-Biserial Correlation Analysis. These various classification systems and the mean empathy scores for each group are reflected in table 4.

TABLE 4

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY MARITAL STATUS

Marital Status	Variable	Mean	Standard Deviation	Number
Three Group Division				
Single	Empathy	23.2500	4.3012	8
Married	Empathy	23.4528	4.0027	53
S-W-D*	Empathy	22.8889	4.9610	9
Total		23.3571	4.1039	70
Two Group Division				
Married	Empathy	23.4528	4.0027	53
Not-Married	Empathy	23.0588	4.5204	17
Total		23.3571	4.1039	70

*Separated, Widowed, or Divorced.

The separated, widowed, or divorced (S-W-D) group obtained the lowest empathy score (22.88) while the married nurses scored the highest (23.45). When the groups were condensed into married and not-married classifications, the means were dissimilar with the married group still achieving higher empathic ability scores (23.45 for the married group versus 23.05 for the not-married group).

Parenthood. There were two categories for the parenthood variable; those who were parents and those who were not ("not-parent" group). The mean empathic ability score was higher for the parent group (23.72) than it was for the "not-parent" group (23.09). The standard deviation was also less in the "not-parent" group (3.75) which also had twelve more nurses in it than the parent group (table 5).

TABLE 5

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY PARENTHOOD

Group	Variable	Mean	Standard Deviation	Number
Parents	Empathy	23.7241	4.5973	29
Not-Parents	Empathy	23.0976	3.7537	41
Total		23.3571	4.1039	70

Education. Three levels of education were identified and analyzed. The sample represented nurses with Diploma, Associate Degree, and Baccalaureate Degree in nursing educational preparation. The Diploma nurses obtained the lowest mean empathy score (22.37); the Baccalaureate Degree nurses the highest means (24.90) (table 6). The mean interactive empathy scores of nurse groups by education reveals progressive increase in mean levels by level of education. This increase is graphically illustrated in figure 4.

TABLE 6

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY EDUCATION

Group	Variable	Mean	Standard Deviation	Number
Diploma	Empathy	22.3750	4.1799	40
Associate Degree	Empathy	24.0000	2.8284	8
Baccalaureate Degree	Empathy	24.9090	3.9630	22
Total		23.3571	4.1039	70

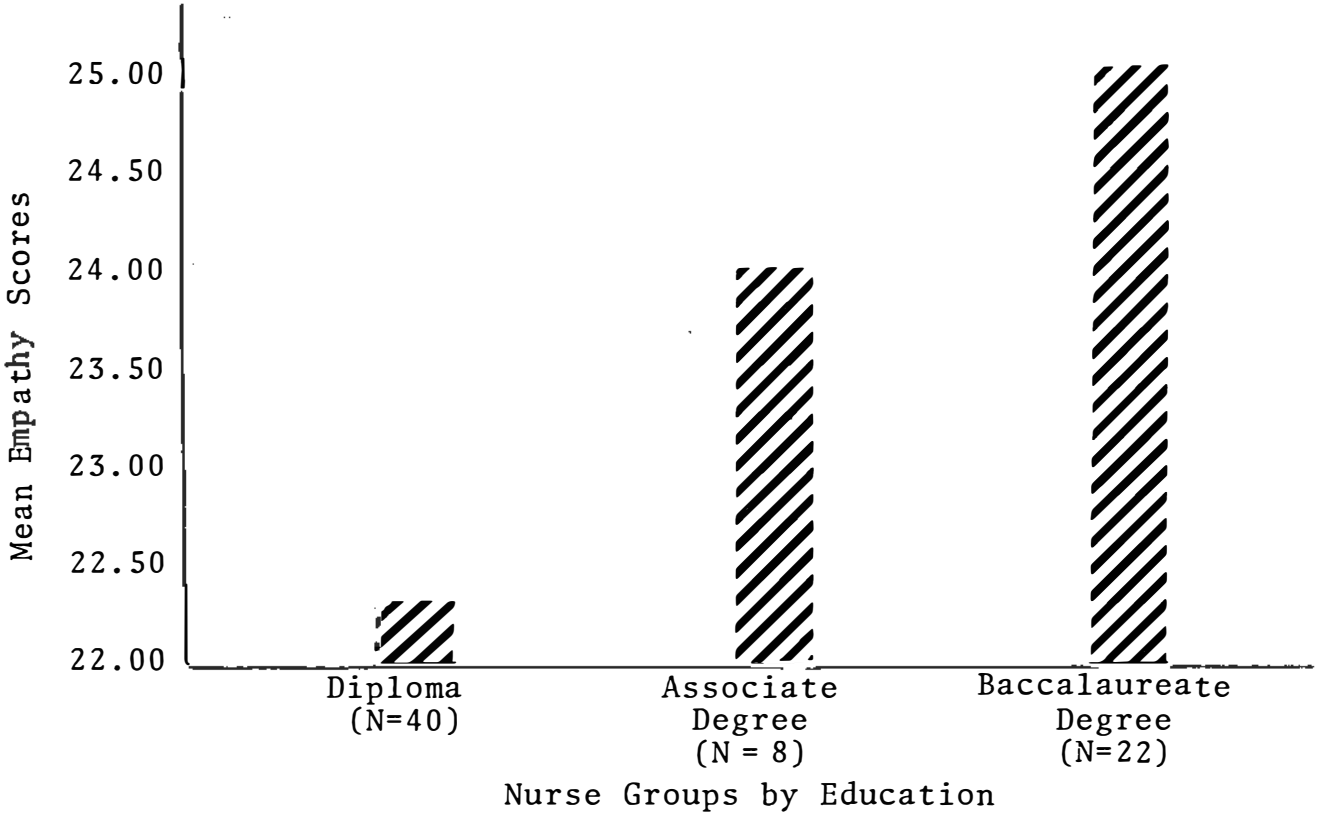

Fig. 4. Mean Empathy Scores for Nurse Groups by Education

Length of practice. The length of practice since graduation from the generic nursing curriculum ranged from less than two years to thirty years. Nurses who had been practicing 6-10 years scored the lowest on empathic ability (22.14) while new graduates, those with less than two years experience, scored the highest (25.31) (table 7). The variance in mean empathy scores is presented graphically in figure 5.

TABLE 7

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY LENGTH OF PRACTICE

Group	Variable	Mean	Standard Deviation	Number
< 2 years	Empathy	25.31250	4.02854	16
2-5 years	Empathy	23.16667	2.82307	12
6-10 years	Empathy	22.14286	2.98347	14
11-20 years	Empathy	23.40000	3.48056	15
21-30 years	Empathy	22.38462	6.13105	13
Total		23.35714	4.10385	70

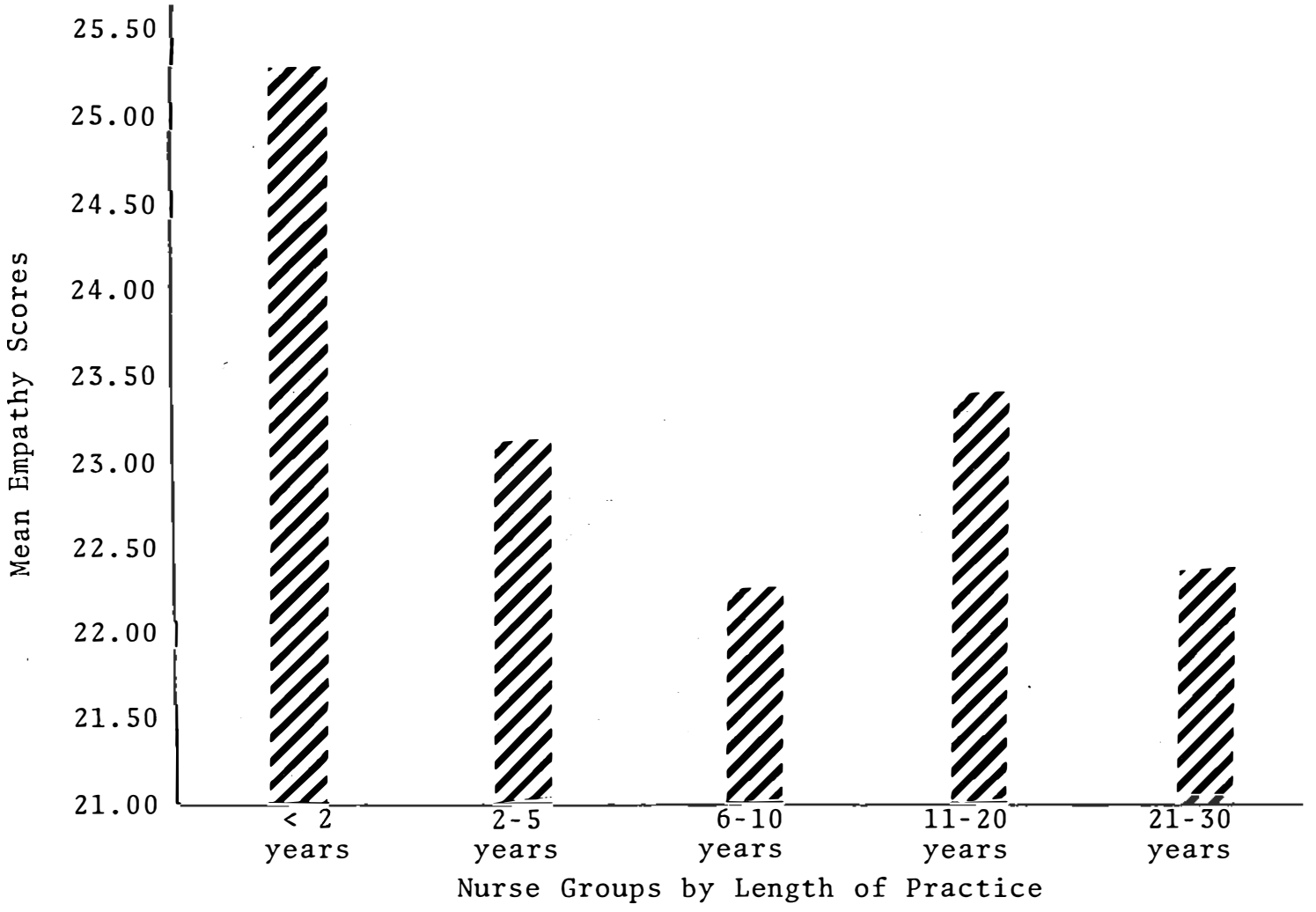

Fig. 5. Mean Empathy Scores for Nurse Groups by Length of Practice

Level of practice. The Personnel Information Form (appendix B) was designed to elicit four levels of practice. It was reported in one of the two research facilities that supervisors did not have the sustained or repeated client contact required for inclusion in the study. Supervisors in the second agency declined the opportunity to be tested. Therefore, there was no data available on the supervisors' level of empathy. The same was true for the level of clinical specialists. As a result, only the staff nurse and head nurse data were obtained.

The majority of nurses in the study occupied staff nursing positions (N=54); very few subjects were at the head nurse level (N=16). The data have been interpreted with the significant difference in sample size in mind. Head nurses obtained higher empathy scores (24.37) than staff nurses (23.05), but also had a higher standard deviation than the staff nurses (table 8).

TABLE 8

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY LEVEL OF PRACTICE

Group	Variable	Mean	Standard Deviation	Number
Staff Nurse	Empathy	23.05556	3.98780	54
Head Nurse	Empathy	24.37500	4.45533	16
Total		23.35714	4.10385	70

On the basis of the descriptive data, head nurses had greater empathic ability than the staff nurses.

Area of practice. Nurses were practicing in five areas of specialization: medical, surgical, psychiatric, orthopedic, and rehabilitative nursing. Rehabilitative nursing included oncology, neurology, and rehabilitation areas. Medical nurses (N=22) obtained the lowest mean empathy score (22.81); the rehabilitative nurses the highest (24.23) (table 9). The scores obtained by each group are graphically presented (with the lowest-to-highest scores preceding from left to right) in figure 6.

TABLE 9

MEAN INTERACTIVE EMPATHY SCORES FOR NURSE GROUPS BY AREA OF PRACTICE

Group	Variable	Mean	Standard Deviation	Number
Medical	Empathy	22.81818	3.78765	22
Surgical	Empathy	23.00000	4.80885	17
Psychiatric	Empathy	23.83333	3.78594	12
Rehabilitation	Empathy	24.23077	4.67536	13
Orthopedic	Empathy	23.50000	3.14643	6
Total		23.35714	4.10385	70

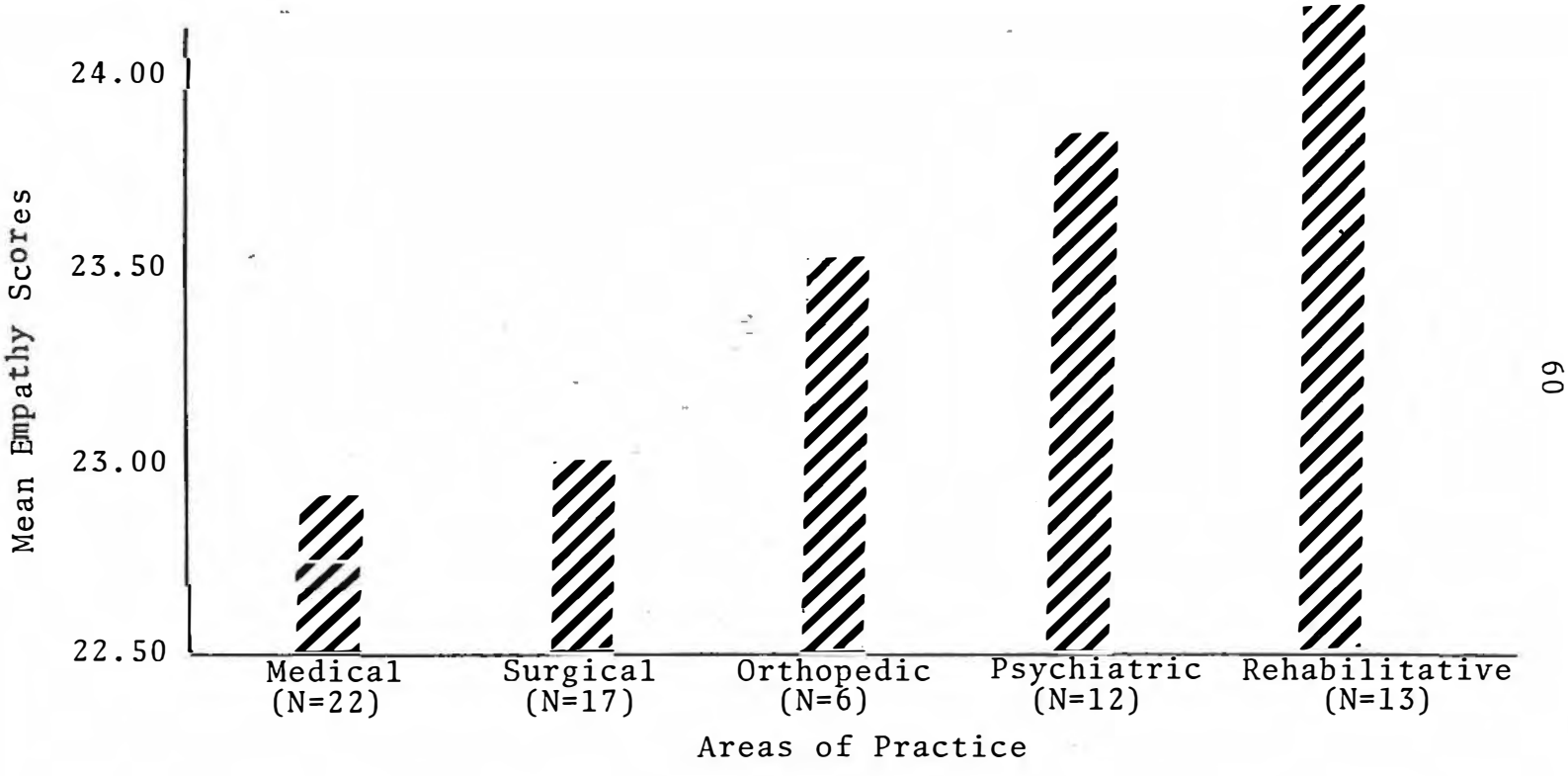

Fig. 6. Mean Empathy Scores for Nurse Groups According to Area of Practice

Correlation of the Criterion Measure with Demographic Variables

The Pearson Product-Moment Correlation Matrix in table 10 demonstrates the degree of correlation (r) between the values for empathy, age, length of practice, and client perception of nurse empathy with each other in the matrix. No significant relationship is demonstrated between empathic ability and age, nor empathic ability and client perception of nurse empathy. In the confluence of this matrix, age and length of practice are significantly positively related ($r = 0.7618$) as would be expected. Table 10 further reflects other low to moderately positive correlations including empathy with education ($r = 0.2844$), and education with client perception of nurse empathic ability ($r = 0.4253$).

A multiple regression technique executed for interactive empathic ability with all variables (table 11) reveals that education was significant ($p = 0.0356$) as a predictor of the criterion variable, empathic ability. The same procedure executed for interactive empathic ability with selected continuous variables (table 12) showed borderline significance ($p = 0.0634$) for education as a predictor of empathic ability.

TABLE 10

PEARSON PRODUCT-MOMENT CORRELATION MATRIX FOR SELECTED VARIABLES (N=70)

Variables	Correlation Coefficients (r)				
	Empathy	Age	Education	Length of Practice	Client Perception of Nurse Empathy
Empathy	1.0000	-0.1452	0.2844*	-0.1580	0.1402
Age		1.0000	-0.1263	0.7618*	0.0435
Education			1.0000	-0.1177	0.4253*
Length of Practice				1.0000	0.0663
Client Perception of Nurse Empathy					1.0000

*$p < 0.05$.

TABLE 11

MULTIPLE REGRESSION COEFFICIENTS OF INTERACTIVE EMPATHIC ABILITY WITH ALL VARIABLES (N = 70)

Source	Sum of Squares	df	Mean Square	F	P
Regression	196.8181	8	24.6023	1.555	0.1575
Residual	965.2534	61	15.8238		
Total	1162.0714	69			

Variable	F	P
Age	0.1726	0.6793
Marital status	0.3346	0.5651
Parenthood	0.1681	0.6833
Education	4.6204	0.0356*
Length of practice	0.7781	0.3812
Level of practice	2.8692	0.0954
Area of practice	1.6497	0.2038
Client perception	0.0016	0.9682

Constant = 19.46118726
Multiple R = 0.41154
Multiple R corrected for shrinkage = 0.24583

*Significance = $p < 0.05$.

TABLE 12

MULTIPLE REGRESSION COEFFICIENTS OF INTERACTIVE EMPATHIC ABILITY WITH SELECTED CONTINUOUS VARIABLES (N = 70)

Source	Sum of Squares	df	Mean Square	F	P
Regression	114.5853	4	28.6463	1.778	0.1440
Residual	1047.4862	65	16.1152		
Total	1162.0714	69			

Variable	F	P
Age	0.0413	0.8395
Education	3.5670	0.0634*
Length of practice	0.3206	0.5732
Client perception of nurse empathy	0.1055	0.5463

Constant = 21.44014561
Multiple R = 0.31401
Multiple R corrected for shrinkage = 0.20769

*Borderline Significance = $p < 0.05$.

In the partial correlations (table 13), again the obtained correlational coefficients R of the education variable compared to the tabled r ($r_{60,\ 0.05} = 0.250$) yielded significance when all variables were considered.

TABLE 13

PARTIAL CORRELATION COEFFICIENTS OF INTERACTIVE EMPATHIC ABILITY WITH ALL VARIABLES

Partial Correlation		Empathic Ability with	Variables Held Constant						
R	RSQ								
-0.0531	0.0028	2-Age	3	4	5	6	7	8	9
-0.0739	0.0055	3-Marital status	2	4	5	6	7	8	9
0.0524	0.0027	4-Parenthood	2	3	5	6	7	8	9
0.2654*	0.0704*	5-Education	2	3	4	6	7	8	9
-0.1122	0.0126	6-Length of practice	2	3	4	5	7	8	9
0.2120	0.0449	7-Level of practice	2	3	4	5	6	8	9
0.1623	0.0263	8-Area of practice	2	3	4	5	6	7	9
0.0051	0.0000	9-Client perception of nurse empathy	2	3	4	5	6	7	8

*$r_{60,\ 0.05} = .250$.

When only the selected continuous variables were considered (table 14), the obtained correlational coefficient R of the education variable compared to the tabled r ($r_{65,\ 0.05}=0.2409$)

yielded borderline significance (p = 0.0520). The rationale for executing the multiple correlations first with all variables and again with only selected continuous variables is presented in the discussion of Hypothesis III, p. 93.

TABLE 14

PARTIAL CORRELATION COEFFICIENTS OF INTERACTIVE EMPATHIC ABILITY WITH SELECTED CONTINUOUS VARIABLES (N = 70)

Partial Correlation		Empathic Ability with	Variables Held Constant		
R	RSQ				
-0.0252	0.0006	2-Age	3	4	5
0.2281	0.0520*	3-Education	2	4	5
-0.0701	0.0049	4-Length of practice	2	3	5
0.0403	0.0016	5-Client perception of nurse empathy	2	3	4

*Borderline
$r_{65,\ 0.05} = 0.2409$

Point-biserial correlations between marital status and empathy, education, length of practice, and client perception of nurse empathy revealed no significant relationships ($p > 0.05 - < 0.10$) (table 15). Thus, marital status did not exert any influence upon empathy, education, length of practice, and client perception of nurse empathy.

This indicated that all three marital status groups obtained similar empathy scores.

TABLE 15

POINT-BISERIAL CORRELATION COEFFICIENTS FOR MARITAL STATUS WITH SELECTED VARIABLES (N = 70)

Marital Status Related to:	r_{pbi}	p
Empathic ability	-0.0415	> 0.05
Education	0.0137	> 0.05
Length of practice	0.0771	> 0.05
Client perception of nurse empathy	0.2184	> 0.05

Similarly, Point-Biserial Correlations between level of practice and empathic ability, education, and client perception showed no significant relationships. Yet, level of practice was significantly and positively correlated with the length of practice (r_{pbi} = 0.4216; $p < 0.05$ & > 0.01) (table 16). As the years of practice increased, nurses moved from staff positions up to head nurse positions.

TABLE 16

POINT-BISERIAL CORRELATION COEFFICIENTS FOR LEVEL OF PRACTICE WITH SELECTED VARIABLES (N = 70)

Level of Practice Related to:	r_{pbi}	p
Empathic ability	0.1360	> 0.05
Education	0.0043	> 0.05
Length of practice	0.4216	> 0.01*
Client perception of nurse empathy	0.1743	> 0.05

The Point-Biserial Correlations between parenthood and selected variables (table 17) showed no significant interactions. Parenthood did not significantly affect empathic ability, education, length of practice, or client perception of nurse empathy ($p > 0.05$). This correlation refutes the belief that parenthood removes women from the nursing practice force and thereby decreases the length of practice.

TABLE 17

POINT-BISERIAL CORRELATION COEFFICIENTS FOR PARENTHOOD WITH SELECTED VARIABLES (N = 70)

Parenthood Related to:	r_{pbi}	p
Empathic ability	0.0327	> 0.05
Education	0.1546	> 0.05
Length of practice	-0.1384	> 0.05
Client perception of nurse empathy	0.2109	> 0.05

Comparison of Demographic Subgroups

To broaden the scope of the study, the empathic ability scores according to subgroup age, marital status, parenthood, level of nursing education, length of practice, level of practice, and area of practice were submitted to statistical analysis. The descriptive statistics for these groups were presented in the preceding section. Comparison

data using analyses of variance and range tests of significance are presented below.

To determine whether and to what extent each group contributed to the variance of the criterion measure, an analysis of variance was performed on the empathic ability scores of the subjects in each subgroup for each category as enumerated. No statistical significance was found among the groups between empathic ability scores and the selected variables (table 18). The only variable which approached significance ($p = 0.0577$) between the groups was education. Nurses aged 30-39 achieved the highest mean score (24.05) and the older nurses (ages 50-59) obtained the lowest mean (20.89). Nurses aged 20-29 and 40-49 scored similarly on empathic ability (23.55). However, the difference between the means was not significant between the age groups when the range product values were examined by Duncan's, Newman-Keuls', or Tukey's methods ($p > 0.05$) (table 19). The number of subjects in the 50-59 years of age group was relatively small when compared to the number of subjects in the other groups. The small sample size contributed to the large range of scores (SD = 4.88) in this group.

TABLE 18

SUMMARY OF ANALYSIS OF VARIANCE BETWEEN INTERACTIVE EMPATHIC ABILITY SCORES OF NURSE GROUPS AND SELECTED VARIABLES (N = 70)

Variable	Source	Sum of Squares	df	Variance Estimate	F Ratio	p
Age	Between	66.3605	3	22.1202	1.3324	0.9257
	Within	1095.7109	66	16.6017		
	Total	1162.0714	69			
Marital status	Between	2.5505	2	1.2752	0.0737	0.9290
	Within	1159.5210	67	17.3063		
	Total	1162.0714	69			
Parenthood	Between	6.6686	1	6.6686	0.3925	0.5331
	Within	1155.4029	68	16.9912		
	Total	1162.0714	69			
Education	Between	94.8782	2	47.4391	2.9783	0.0577
	Within	1067.1932	67	15.9283		
	Total	1162.0714	69			
Length of practice	Between	94.5761	4	23.6440	1.4397	0.2309
	Within	1067.4954	65	16.4230		
	Total	1162.0714	69			
Level of practice	Between	21.4881	1	21.4881	1.2811	0.2616
	Within	1140.5833	68	16.7733		
	Total	1162.0714	69			
Area of practice	Between	21.3243	4	5.3311	0.3038	0.8744
	Within	1140.7471	65	17.5500		
	Total	1162.0714	69			

$p < 0.05$

TABLE 19

SUMMARY OF RANGE TEST OF SIGNIFICANCE OF DIFFERENCE BETWEEN AGE GROUPS' MEAN EMPATHY SCORES

Duncan's Range Values: 2.829
2.076
3.073

Ranks	Initial Groups	Mean Difference	Duncan's Range Products
4 - 1	2 - 4	3.15873	3.52739
4 - 2	2 - 1	0.52381	2.64606
4 - 3	2 - 3	0.46869	2.58070
3 - 1	3 - 4	2.69005	3.46056
3 - 2	3 - 1	0.05512	2.58070
2 - 1	1 - 4	2.63492	3.24731

NOTE: If the mean difference exceeds the range product value, the means are significantly different. Significant results are marked with a "*" for each test. Significance level = 0.05.

KEY: 1 = 20-29 years
2 = 30-39 years
3 = 40-49 years
4 = 50-59 years

The analysis of variance between empathic ability and marital status groups yielded no significant difference ($p > 0.05$) among the three groups (table 20).

TABLE 20

SUMMARY OF RANGE TEST OF SIGNIFICANCE OF DIFFERENCE BETWEEN SINGLE, MARRIED, AND SEPARATED-WIDOWED-DIVORCED (S-W-D) GROUPS' MEAN EMPATHY SCORES

Duncan's Range Values: 2.829
2.976

Groups	Mean Difference	Duncan's Range Products
Single vs S-W-D	0.56394	3.15614
Married vs S-W-D	0.20283	3.15647
S-W-D vs Single	0.36111	4.04369

NOTE: If the mean difference exceeds the range product value, the means are significantly different. Significant results are marked with an "*" for each test. Significance level = 0.05.

When the variable was dichotomized into married and not-married groups, no significant difference between the mean empathic ability scores was obtained ($p > 0.05$) (table 21). The lack of significance was expected since the means for the three group division in figure 7 and empathy scores for the various marital groups were similar (figures 7 and 8).

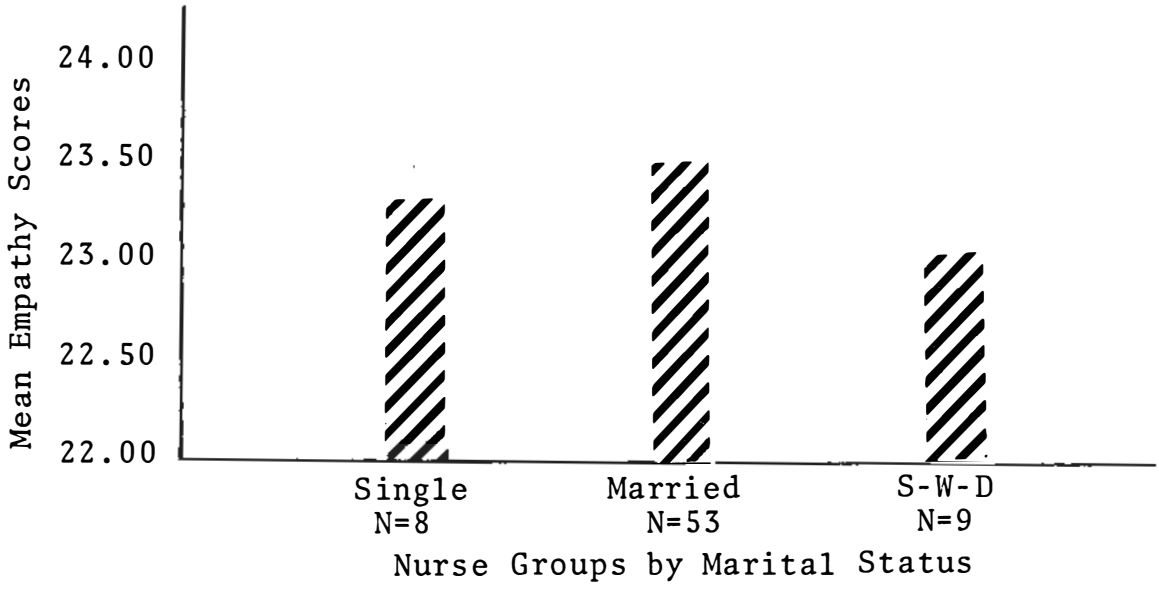

Fig. 7. Mean Empathy Scores for Nurse Groups by Three Marital Classifications.

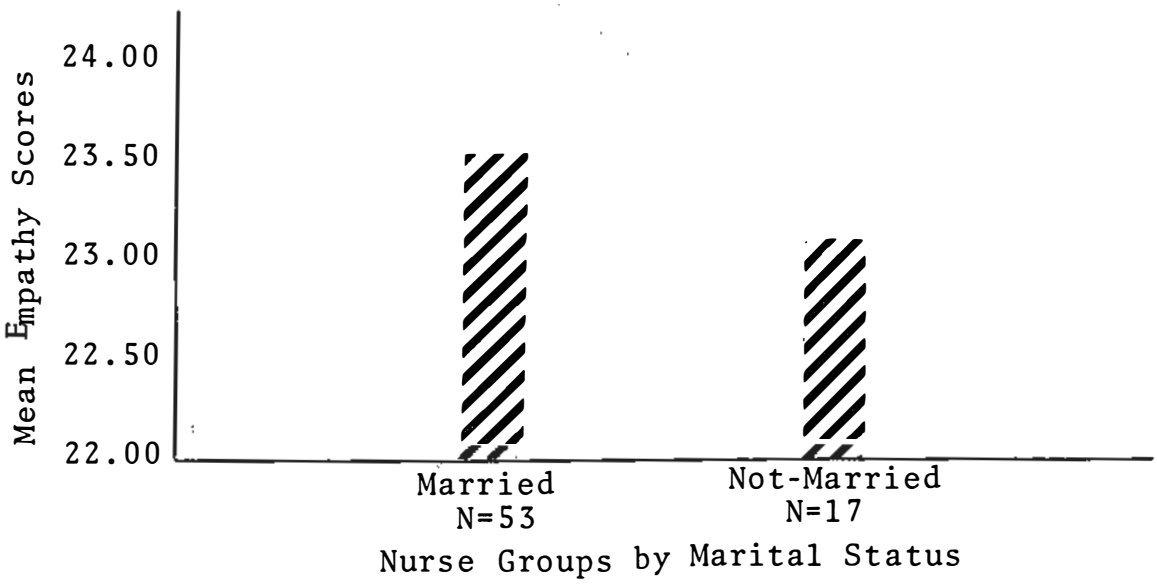

Fig. 8. Mean Empathy Scores for Nurse Groups by Two Marital Status Classifications.

TABLE 21

SUMMARY OF RANGE TEST FOR SIGNIFICANCE OF DIFFERENCE BETWEEN MARRIED AND NOT-MARRIED GROUPS' MEAN EMPATHY SCORES

Duncan's Range Value: 2.829

Ranks	Initial Groups	Mean Difference	Duncan's Range Products
Married versus Not-Married	Not-Married versus Married	0.39401	2.30299

NOTE: If the mean difference exceeds the range product value, the means are significantly different. Significant results are marked with an "*" for each test. Significance level = 0.05.

No significant findings for the parenthood variable were revealed by the range test analysis of variance. No significant difference between the parenthood groups on mean empathic ability scores was found ($p = 0.5331$) (table 22), which indicated that nurses who were parents did not score significantly higher or lower on empathic ability than the nurses without offspring.

TABLE 22

TEST OF SIGNIFICANT DIFFERENCE BETWEEN PARENTHOOD GROUPS' MEAN EMPATHIC ABILITY SCORES (N = 70)

Duncan's Range Value: 2.829

Groups	Ranked Means	Mean Difference	Duncan's Range Product
Married versus Not-Married	23.72414 - 23.09755	= 0.62659	2.00073

NOTE: If the mean difference exceeds the range product value, the means are significantly different. Significant results are marked with an "*" for each test. Significance level = 0.05.

The Range test analysis of variance was also used on the level of education variable. A significant difference was found when the level of education of the nurses was considered, however. The Duncan's Range Test yielded a significant difference in empathic ability between Diploma and Baccalaureate nurses ($R = 2.2292$; $p \geq 0.05$) (table 23). There was no significant difference in

empathic ability between the Associate Degree and Diploma nurses (R = 3.0920; p > 0.05).

TABLE 23

SUMMARY OF RANGE TEST OF SIGNIFICANT DIFFERENCE BETWEEN EDUCATION GROUPS' MEAN EMPATHIC ABILITY SCORES (N = 70)

Duncan's Range Values: 2.829
2.976

Source	Ranked Means			Mean Difference	Duncan's Range Products
3 - 1	24.91 - 22.38	=		2.53	2.23*
3 - 2	24.91 - 24.00	=		0.91	3.30
2 - 1	24.00 - 22.38	=		1.63	3.09

NOTE: If the mean difference exceeds the range product value, the means are significantly different. Significant results are marked with an "*" for each test. Significance level = 0.05.

KEY: 1 = Diploma
2 = Associate Degree
3 = Baccalaureate Degree

The remaining three variables that underwent statistical analysis were length of practice (number of years of full time practice since terminal preparation), level of practice (having staff or head nurse responsibilities), and area (according to specialty) of practice. It was expected that the length of practice would influence

the empathic ability of the nurse; the data did not reinforce this expectation. There was no significant difference on empathic ability between nurses who had practiced less than two years and those who had practiced more than twenty-one years ($R = 3.2880$; $p > 0.05$). Nor were there any significant differences on this variable between any of the length of practice groups (table 24), therefore length of practice did not significantly affect empathic ability among the sample subjects.

TABLE 24

SUMMARY OF RANGE TEST OF SIGNIFICANT DIFFERENCE BETWEEN LENGTH OF PRACTICE GROUPS' MEAN EMPATHIC ABILITY SCORES (N = 70)

Duncan's Range Values: 2.829
2.976
3.073
3.143

Source	Mean Difference	Duncan's Range Products
1 - 3	3.16965	3.29604
1 - 5	2.92789	3.28807
1 - 2	2.14584	3.25666
1 - 4	1.91251	2.91353
4 - 3	1.25714	3.27238
4 - 5	1.01538	3.23151
4 - 2	0.23334	3.13971
2 - 3	1.02380	3.35487
2 - 5	0.78204	3.24528
5 - 3	0.24176	3.12241

KEY: 1 = Less than 2 years
2 = 2-5 years
3 = 6-10 years
4 = 11-20 years
5 = 21-30 years

Two levels of practice pertained to all nurses in this study: staff and head nurse levels. The Fisher t test was used to evaluate the significant differences between these two groups on empathic ability scores (table 25). No significant difference on empathic ability scores between staff and head nurses was found. This finding assured a uniform influence of this variable upon empathic ability in spite of the large difference in subjects in the groups.

TABLE 25

FISHER'S t TEST FOR SIGNIFICANT DIFFERENCE BETWEEN STAFF AND HEAD NURSE LEVELS OF PRACTICE ON MEAN EMPATHIC ABILITY SCORES

	Mean Empathy	Standard Deviation	t	p
Staff Nurse (N=54)	23.0556	3.9878		
			1.1319	> 0.05
Head Nurse (N=16)	24.3750	4.4553		

The final variable that was examined was area of practice. The categories of specialty were medical, surgical, psychiatric, orthopedic, and rehabilitative nursing. The small range of mean empathy scores (22.80 - 24.23) for the nurses in various areas forecasted no

significant differences between any of the means. The Duncan Range test verified that there were no significant differences between the mean empathic ability scores of any of the areas of practice ($F = 3.35$; $p > 0.05$) (table 26).

TABLE 26

SUMMARY OF RANGE TEST OF SIGNIFICANCE OF DIFFERENCE BETWEEN AREA OF PRACTICE GROUPS' MEAN EMPATHIC ABILITY SCORES (N = 70)

Duncan's Range Values: 2.829
2.976
3.073
3.143

Source	Mean Difference	Duncan's Range Products
4 - 1	1.41259	3.25700
4 - 2	1.23077	3.35390
4 - 5	0.73077	4.35096
4 - 3	0.39744	3.35478
3 - 1	1.01515	3.26680
3 - 2	0.83333	3.32384
3 - 5	0.33333	4.19011
5 - 1	0.68182	4.06020
5 - 2	0.50000	3.97942
2 - 1	0.18182	2.70615

NOTE: If the mean difference exceeds the range product value, the means are significantly different. Significant results are marked with an "*" for each test. Significant level = 0.05.

KEY: 1 = Medical
2 = Surgical
3 = Psychiatric
4 = Rehabilitation
5 = Orthopedics

So, nurses in all areas of specialty scored similarly on empathic ability. Even those in rehabilitation nursing who had experienced prolonged relationships with clients did not score significantly higher on the empathy scale.

Hypothesis II

There is no significant relationship between interactive empathic ability of the professional nurse and the nurse-client interaction outcome.

Descriptive Statistics

The results of the empathic ability testing of nurses are presented in the analysis of Hypothesis I of this chapter. Raw data about the seventy client subjects' evaluation scores on the perception of nurse empathy, using the Barrett-Lennard Relationship Inventory, are presented in appendix C. Descriptive statistical analysis of the scores revealed a mean score of 70.64 and a standard deviation of 12.92. The range of obtained evaluation scores was twenty-one to ninety-six (21-96) from a possible range of one to ninety-seven (1-97). The measurement scale of the Barrett-Lennard Relationship Inventory was designed by the author to have a value of +3 or -3 for each item of each scale. The range for the empathy scale is +48 to -48. To accommodate computer analysis, the scores were translated

to positive numbers, one through ninety-seven. All scores below forty-eight are negative indicating that the client did not perceive the nurse's level of empathic ability as evaluated by the Hogan Empathy Scale. All scores above forty-eight are positive scores with ninety-seven being the highest possible score. Scores greater than 48 reveal that clients were able to perceive the nurse's empathic ability. Table 27 presents the frequency distribution of client perception of nurse empathic ability scores. Table 27 shows that 98 percent of the clients perceived their nurses as having high empathic ability (score greater than 48). This finding does not correlate well with the normal distribution of actual nurse empathy.

Examination of the client perception of nurse empathy mean scores by nurse groups by area of practice revealed the Rehabilitative group with the highest mean score of 73.15 and the Psychiatric group with the lowest mean score of 64.17 (table 28 and figure 9). Looking at the same group of scores by educational sub-levels demonstrated the same phenomenon as occurred with the nurse empathic ability mean scores. As educational level of nursing preparation increased, the client perception of nurse empathy mean scores increased. This finding confirmed that with progressively increasing educational

TABLE 27

FREQUENCY DISTRIBUTION OF CLIENT PERCEPTION OF NURSE EMPATHY SCORES

Score		f
96 -100	/	1
91 - 95	/	1
86 - 90	///// ///	8
81 - 85	/////	5
76 - 80	///// ///// //	12
71 - 75	///// ///// /	11
66 - 70	///// ///	8
61 - 65	///// /////	10
56 - 60	///// //	7
51 - 55	////	4
46 - 50	/	1
41 - 45	/	1
36 - 40		
31 - 35		
26 - 30		
20 - 25	/	1
		$\Sigma f = 70$

TABLE 28

CLIENT PERCEPTION OF NURSE EMPATHY MEAN SCORES BY AREA OF PRACTICE AND SUB-LEVELS BY EDUCATION

Group	Variable	Mean	S.D.	N
Medical	Client Perception	70.68	14.15	22
Diploma		(65.50)		(10)
AD		(69.20)		(5)
BSN		(79.14)		(7)
Surgical	Client Perception	72.76	11.04	17
Diploma		(67.56)		(9)
AD				(0)
BSN		(78.63)		(8)
Psychiatric	Client Perception	64.17	10.92	12
Diploma		(63.00)		(10)
AD				(0)
BSN		(70.00)		(2)
Orthopedic	Client Perception	72.00	7.29	6
Diploma		(66.50)		(2)
AD		(77.50)		(2)
BSN		(72.00)		(2)
Rehabilitation	Client Perception	73.15	16.08	13
Diploma		(67.37)		(8)
AD		(81.33)		(3)
BSN		(84.00)		(2)
Total		70.64	12.92	70

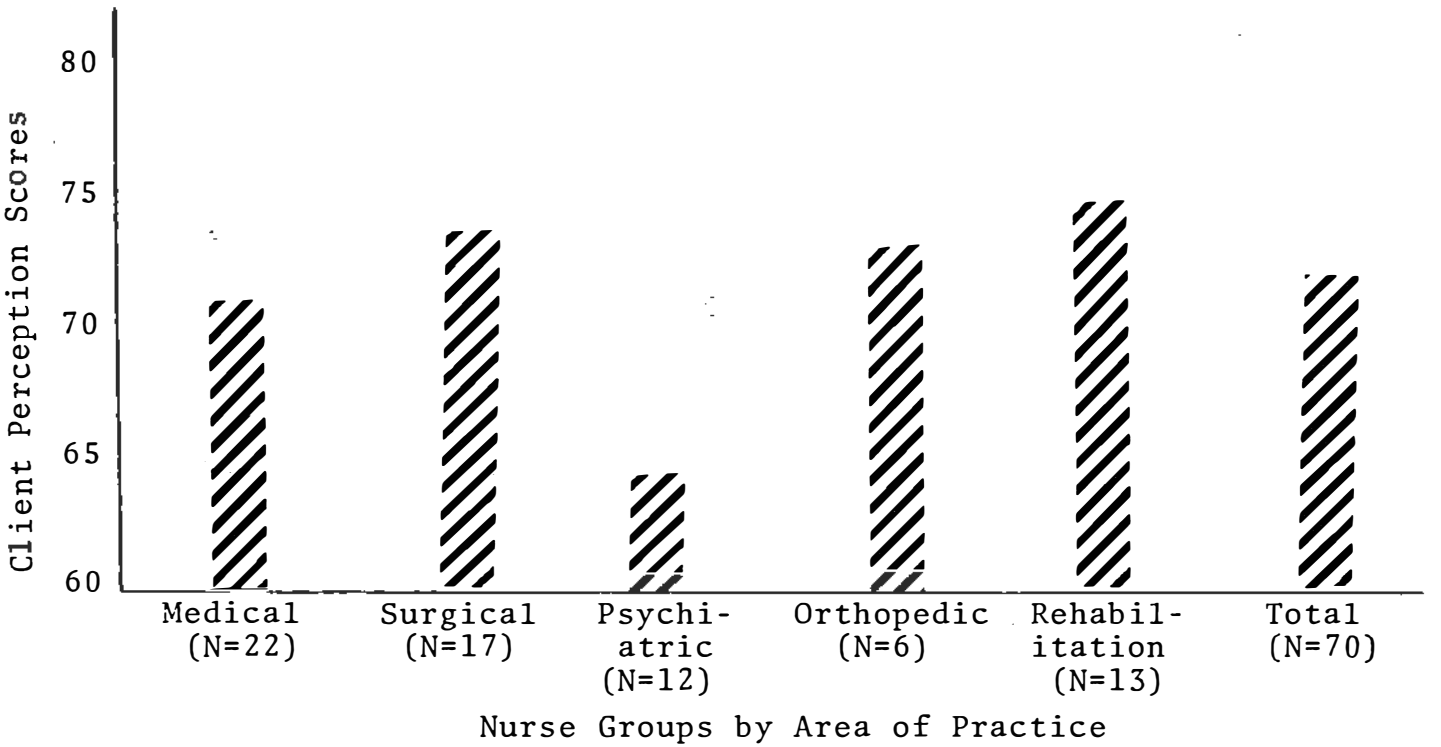

Fig. 9. Client Perception of Nurse Empathy Mean Scores by Area of Practice.

levels, both empathic ability of the nurse and client perception of nurse empathy increased. Table 29 demonstrates that mean scores of client perception of nurse empathy increased consistently both by level of practice and by educational level of nursing preparation. The increase by level of practice is illustrated in figure 10.

Correlation Statistics

The simple correlation coefficient (table 10) for client perception of nurse empathy with empathic ability of the nurse ($r = 0.1402$; $p > 0.05$) revealed no significant interaction. This is graphically illustrated on a point scatter diagram in figure 11. The points on the scatter diagram are a result of the linear regression analysis of the correlation between a nurse's empathic ability score and her client's perception of her empathic ability. The wide dispersion of points with no pattern showed that there were no directional correlations (scores) between the nurse's empathic ability and her client's perception of it.

TABLE 29

CLIENT PERCEPTION OF NURSE EMPATHY MEAN SCORES BY LEVEL OF PRACTICE AND SUB-LEVELS BY EDUCATION

Group	Variable	Mean	S.D.	N
Staff Nurse	Client Perception	69.43	13.15	54
Diploma		(64.10)		(30)
AD		(73.63)		(8)
BSN		(77.31)		(16)
Head Nurse	Client Perception	74.75	11.55	16
Diploma		(71.80)		(10)
AD				(0)
BSN		(79.66)		(6)
Total		70.64	12.92	70

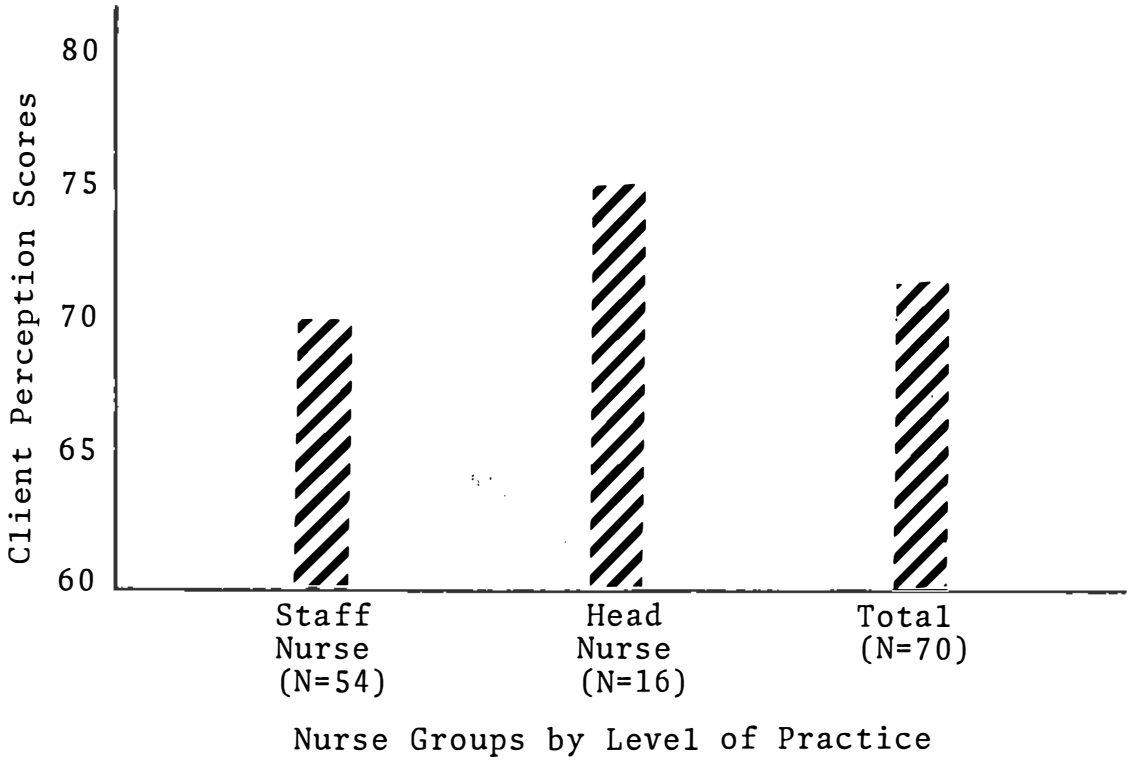

Fig. 10. Client Perception of Nurse Empathy Mean Scores by Level of Practice.

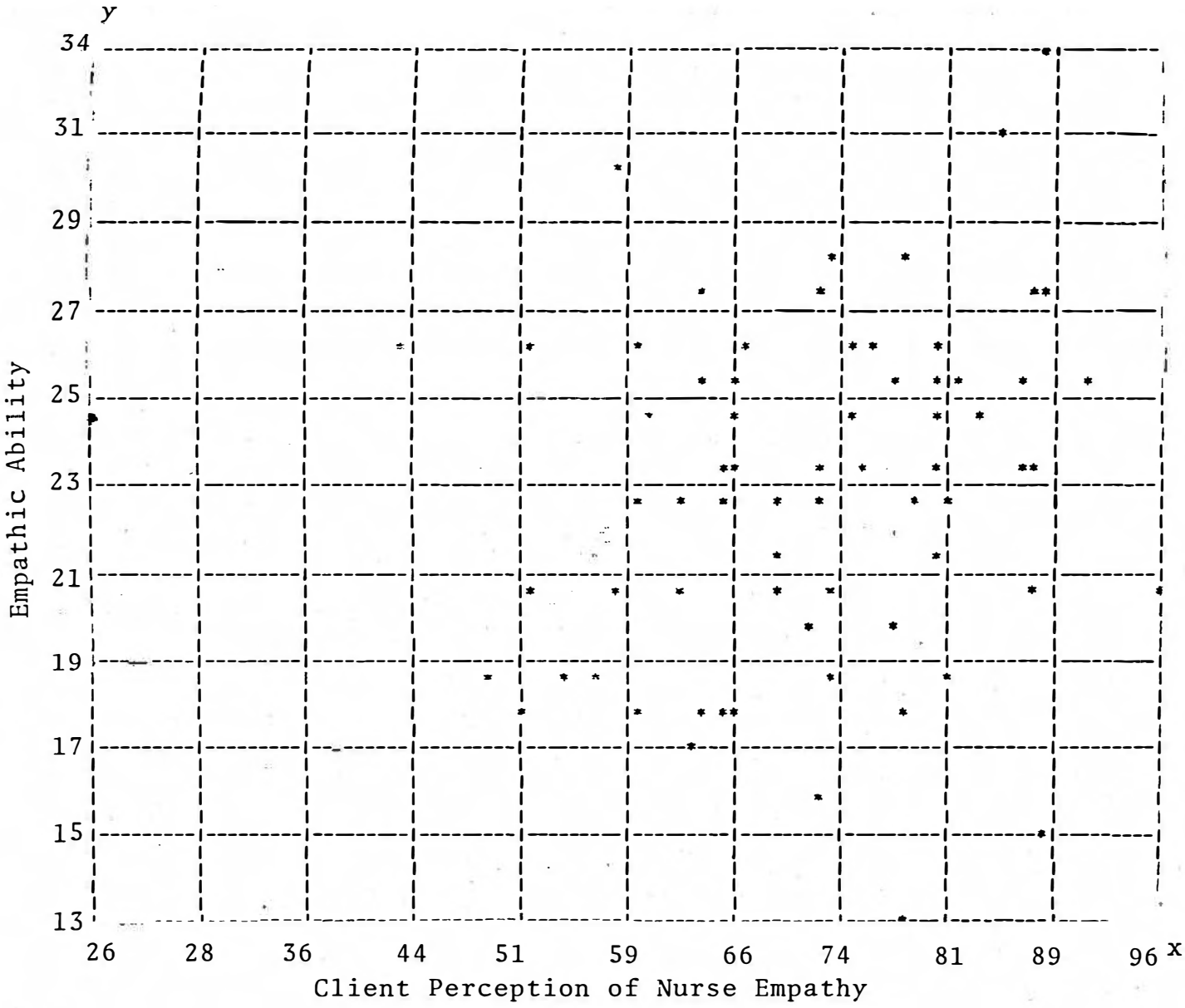

Fig. 11. Point Scatter Diagram of Empathic Ability versus Client Perception of Nurse Empathy.

Comparison Statistics

Based on client perception of nurse empathy, both by level of practice groups and area of practice groups, an analysis of variance was performed. No statistical significance of difference was found between the groups when the client perception of nurse empathy mean scores were examined by level of practice (table 30). Head nurses were perceived by clients as more empathic than staff nurses but not significantly so. Based on area of practice the mean scores were highest for the Rehabilitative nurses and lowest for the Psychiatric nurses. Although this finding did not achieve a significant level, its occurrence is disquieting in view of the theoretical formulations upon which this study is based, and this finding will be further discussed in the implications section.

TABLE 30

SUMMARY OF ANALYSIS OF VARIANCE BETWEEN CLIENT PERCEPTION OF NURSE EMPATHY SCORES OF NURSE GROUPS BY SELECTED VARIABLES

Variable	Source	Sum of Squares	df	Variance Estimate	F Ratio	P
Level of practice	Between	349.8677	1	349.8677	2.1318	$F_{1,68(.95)}=3.9850$
	Within	11160.2037	68	164.1206		
	Total	11510.0714	69			
Area of practice	Between	672.8809	4	168.2202	1.0090	$F_{1,65(.95)}=3.99$
	Within	10837.1905	65	166.7260		
	Total	11510.0714	69			

Hypothesis III

There will be no predictive relationship detected between interactive empathic ability and age; marital status; parenthood; education; and length, level, and area of practice when a stepwise multiple linear regression model is built.

Descriptive Statistics

The descriptive statistics have been previously examined and reported under Hypotheses I and II.

Correlation Statistics

A stepwise multiple regression procedure was performed to determine predictive correlation of interactive empathic ability (Y) with the independent variables X_2 through X_9. The multiple regression summary table of these eight variables with empathic ability is shown in table 31. Variable X_5 (education) entered first and was the strongest variable associated with empathy (it is the best predictor of empathic ability). This statistic predicted that as education level increased, so did nurse empathic ability. Other variables, whose test of predictability were significant, in order of their entry were area of practice, length of practice, level of practice, and marital status. Age and parenthood, although they

entered the regression model, were not significant when tested for probability of predictability to another population. The variable, client perception of nurse empathy, did not enter the regression model.

TABLE 31

STEPWISE MULTIPLE REGRESSION SUMMARY TABLE OF PREDICTIVE CORRELATION OF ALL VARIABLES WITH INTERACTIVE EMPATHIC ABILITY

Step	Variable	Adjusted R-Square	F	P
1	Education	0.0674	5.9832	0.0170*
2	Area of practice	0.0786	3.9417	0.0241*
3	Length of practice	0.0831	3.0847	0.0332*
4	Level of practice	0.1101	3.1344	0.0203*
5	Marital status	0.1010	2.5497	0.0363*
6	Age	0.0877	2.1058	0.0649
7	Parenthood	0.0756	1.8057	0.1021

*p = 0.05.

Kerlinger recommends the use of multiple regression analysis in complex research problems--when, for example, interactions, covariates, nominal variables (sex, social

class), and nonlinear components are involved.[1] He acknowledges that there is a failure of some psychologists, sociologists, and educators to accept multivariate methods of analysis which mirror psychological, sociological, and educational reality better than simpler methods.[2]

Since there is a conflict about the use of powerful statistical analyses with nominal data and to satisfy the requirement for stringency, a second stepwise multiple regression was built omitting the nominal variables and utilizing only selected continuous variables (X_2, X_5, X_6, X_9) with interactive empathic ability (X_1). As in the first stepwise procedure, the education variable entered the model first with length of practice following. Both had significant F's for predictive correlation. The summary table for this multivariate analysis is presented in table 32.

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[1]Fred N. Kerlinger, Foundations of Behavioral Research, 2nd ed. (New York: Holt, Rinehart & Winston, 1973), p. 641.

[2]Ibid., p. 655.

TABLE 32

STEPWISE MULTIPLE REGRESSION SUMMARY TABLE OF PREDICTIVE CORRELATION OF SELECTED VARIABLES WITH INTERACTIVE EMPATHIC ABILITY

Step	Variable	Adjusted R-Square	F	P
1	Education	0.0674	5.9832	0.0170*
2	Length of practice	0.0696	3.5819	0.0333*
3	Client perception of nurse empathy	0.0570	2.3911	0.0765
4	Age	0.0431	1.7776	0.1440

*p = 0.05.

CHAPTER VI

DISCUSSION

This discussion of the results is presented in four parts. The first, a summary of findings and discussion, is followed by the conclusions that have been drawn from the findings as they relate to the specific hypothesis being tested. The third section deals with the implications of the study for nursing science. The discussion concludes with suggestions for further study.

Summary of Findings and Discussion

The empathic ability of seventy nurses was explored in relation to eight variables, i.e., age; marital status; parenthood; education; length, level, and area of practice; and client perception of nurse empathy, as well as to subgroupings of seven of these variables. The findings of this study follow. An overall summary is presented in appendix C, page 142.

The demographic characteristics of the nurse subjects are summarized in table 1. Over half of the nurses were over thirty, married, not parents, diploma prepared, and working as staff nurses. A similar number were in each length of practice and area of practice group.

Descriptive statistics revealed the empathic ability scores for nurses in this study were in the middle and upper levels of the range of possible scores. The scores distributed normally. The older nurses (50-59 years of age) scored lowest on empathy; the 30-39 years of age group obtained the highest score (3.17 points higher, but not significant). The highest empathy scores were also achieved by the married nurses and those who were parents.

Those with the higher education level (Baccalaureate Degrees) also achieved higher empathic ability scores. There was a progressive increase in mean empathy scores by level of education. The Duncan range test showed that Baccalaureate nurses achieved significantly higher levels of empathic ability than Diploma nurses ($p < 0.05$). Associate Degree nurses obtained higher empathy scores than Diploma nurses also, but the difference was not statistically significant.

Data produced interesting findings regarding length and level of practice. The more recent the graduate, the higher the empathic ability. Those nurses who had been practicing less than two years obtained the highest scores. Though there were no significant differences between the length of practice groups' empathy scores, there was a

negative correlation between these variables. This correlation was surprising and present in more than one group.

Information on the level of practice showed that head nurses obtained higher empathy scores than staff nurses. This finding was not consistent with the data relating to length of practice. Assuming that head nurses have had longer periods of practice than the staff nurse, one would expect that empathy would decrease over the years, according to the length of practice data. The level of practice data produced contradictory results. This discrepancy defies explanation from the data at hand. The head nurses in this sample were in an age range of 30-60 with a mean age of 41.5 years of age. The mean empathic ability score for all head nurses was 24.57.

When evaluated by educational level the ten Diploma educated head nurses had a mean empathic ability score of 23.9 with a mean score of 25.33 for the six Baccalaureate degree prepared head nurses. This latter observation is consonant with the results already reported above about the progressively increasing empathic ability scores with increasing level of education; however, it does not clarify the age finding which indicated that as nurses' age increased, empathic ability scores decreased. One explanation supports, and in turn is supported by, the theoretical formulations

which guided this research study. As the nurses' opportunities for empathic experiences with clients are increased, the rewards and ego satisfactions which they experience act as reinforcement for the further development of empathic responses and consequently empathic ability. This is not to suggest that staff nurses do not have opportunities for empathic experiences with their clients, but that the organizational structure is presently such that the reward system favors the head nurses.

Empathic ability was not significantly related to the area of practice. Medical, surgical, orthopedic, and psychiatric nurses all scored similarly on empathic ability. The rehabilitative nurses scored the highest, but not significantly higher than all the others. It was anticipated that psychiatric nurses would score the highest on empathic ability since their practice involves conscientious efforts to make empathic responses. Perhaps that is what indeed has happened, since the client's perception of psychiatric nurses' empathy is high and actual empathic ability is lower than expected. Nurses can make empathic remarks without experiencing empathy.

The above supposition was supported by analysis of the data on the client's perception of nurse empathy. Ninety-eight percent of the clients perceived their nurses

as having high empathic ability (as denoted by Barrett-Lennard scores of 48 or more). The Hogan Empathy Scale revealed that only 50 percent of the nurses had high empathic ability. The data suggested that clients perceive all nurses as empathic, whether they are or not. Some nurses, then, are either presenting themselves as something they are not, or else client perception of reality is distorted. Whichever is the case, the effect is deleterious and should be rectified. Corrective measures are presented as implications for nursing.

Conclusions

Based on the findings of the study the following dispositions of the null hypotheses were made:

1. There is no significant relationship between empathic ability and selected demographic variables (age; marital status; parenthood; education; and length, level, and area of practice. The results failed to reject the null hypothesis for all variables except education. The null hypothesis for education was rejected at the 0.05 level of significance. So, there was a significant relationship between education and empathic ability.

2. There is no significant relationship between nurse interactive empathic ability and the client's

perception of nurse empathy. This hypothesis failed to be rejected at the 0.05 level of significance.

3. There is no significant predictive relationship between nurse interactive empathic ability and age; marital status; parenthood; education; and length, level, and area of practice in a stepwise multilinear regression model. This hypothesis was rejected at the 0.05 level of significance for education, level of practice, length of practice, area of practice, and marital status. These variables had statistically significant predictive properties for level of empathic ability. The results failed to reject the null hypothesis for age, parenthood, and client perception of nurse empathy. These three variables did not have any predictive ability for determining nurse empathic ability.

There were other conclusions that were drawn from the study that did not specifically relate to any of the hypotheses. These conclusions are listed below:

1. The data suggested that marriage was not a cause of cessation of practice. The majority of nurses were married at the time of testing.

2. New graduates scored the highest on nurse interactive empathic ability. As length of practice increased, empathic ability scores dropped.

3. Baccalaureate nurses exhibited the highest degree of nurse empathic ability, with the Associate Degree nurses following and Diploma nurses trailing with the lowest scores. Education was found to be a significant predictor of empathy: as educational level increases, so does empathic ability.

Implications for Nursing Science

One very important implication of the present research is its support of the theoretical foundations upon which it is based. It is what the client perceives which contributes to his physical, emotional, and psychological well-being. Although the client's perception of nurse empathy in this particular sample was not related to actual empathic ability of the nurses, it is evident that forces exist which enhance the relationship, and the client's perception of it. Nurses have the opportunity and responsibility to tap into these environmental forces, whatever they may be, and utilize the power gained from it toward excellence in achievement of nursing goals. Otherwise, the situation may be construed as one of power, in which the client, fearful that he will not be cared for, declines to say anything derogatory about the persons whose responsibility it is to care for him.

The attention to the observation that psychiatric nurses achieved the lowest mean score in client perception of nurse empathy is not intended to imply a trend. The finding is disquieting because the expectation exists that psychiatric nurses are prepared professionally to be responsive, to listen empathically, to communicate and intercede empathically, and to contribute to the growth of others and thereby enhance their own growth. This process is true for all nursing preparation but especially so for the selection of nurses for the psychiatric area. The finding is disquieting also due to knowledge based upon tested and retested hypotheses that it is what the client perceives which contributes to his growth and well-being. The implication would seem to dictate that, especially in areas where highly empathic persons are essential to the care and cure of clients, practitioners be fully prepared personally and professionally to meet the needs of clients. Nursing interventions may be said to be based on scientific knowledge when tested propositions are acted upon and applied to one's practice.

Another implication for nursing science is the identification of variables related to empathy which require further investigation and validation before conclusive evidence may be gained which may be used in theory building.

The findings of this study indicate that with another sample the probability that education and length of practice will influence the empathic ability levels of nurses is significant.

An implication for nursing practice is the need in the clinical area for recognition of a system of rewards to be built into the evaluation process. Empathic ability must be cultivated, nurtured, and rewarded in order to maintain the empathic ability which the recent graduate possesses and to prevent the loss of it. Nursing educators and nursing practitioners must stress excellence in functional aspects of nursing as well as emphasize the person-oriented aspects. The expected outcome of this would enable nurses to focus on persons and feelings as well as on procedures for curative care. There is a generally acknowledged incongruity between educational preparation for nursing and actual practice of nursing. The thesis of Kramer's book, Reality Shock, was that the emotional well-being of nurses decreases once they enter the work setting.[1] The findings of this study support Kramer. The prescriptive interventions for this situation may involve attitude and value system change on the part of those nurses in leadership

[1]Marlene Kramer, Reality Shock; Why Nurses Leave Nursing (St. Louis: C. V. Mosby Co., 1974).

positions as well as those at all levels and areas of nursing practice. The variables that affect behavior in large measure are those in the realm of values and beliefs. Values cannot be imposed. A nursing system which does not encourage or permit exploration of these for all its members runs the risk of hampering what Gardner called "self-renewal,"[1] and the whole process which the term implies for both personal and institutional change. Management of nursing must enlarge on a focus of quantitative or conformist regulations with more existential or creative implementation of nursing goals, both individual and organizational. This implies emphasis on the affective as well as the cognitive experiences. Both are essential bases for nursing preparation and practice. Continued study of the affective domain should make it possible to delineate the personal and professional variables that will identify the kind of person who makes the best practitioner. Specifically, a program of in-service education for understanding the importance of the concept of empathy in regard to effective client-nurse relationships, as well as the opportunities for developing or increasing it should be afforded nurses. This must be

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[1]John W. Gardner, Self-Renewal; The Individual and the Innovative Society (New York: Harper and Row, Publishers, 1964).

complemented with intermittent peer evaluation as well as client feedback. Feedback from clients must be made to nurses, not necessarily individually but certainly at the very least as a group. Nurses need to know how they are perceived. They need to know how they are perceived based on reality as opposed to hearing it confused by suspicion that clients are motivated by awe or fear of the environmental professional power of the nurse. This implies that nursing practitioners must project a public image which is more congruous with the accepted values of nursing. It implies that the responsibility is an individual one. Gibran stated this idea succinctly when he wrote, "See first that you yourself deserve to be a giver, and an instrument of giving."[1]

In summary, a limited but important contribution to nursing science has been made through the exploration of an essential concept. Without this baseline data, it is impossible to initiate and progress through to prescriptive levels of theory which in a practice discipline are imperative.[2] This is especially true in nursing where an

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[1]Kahlil Gibran, The Prophet (New York: Alfred A. Knopf, 1973), p. 21.

[2]James Dickoff and P. James, "Theory in a Practice Discipline. Practice Oriented Theory, Part 1," Nursing Research 17 (1968): 416.

adopted and prized value is the development of a scientific base for the professional practice of nursing.

Recommendations for Further Studies

The findings of this present study and the need to add to the scientific knowledge base support the need for further research in this area. Further studies that might be undertaken and the rationale for the recommendations follow.

Generalizability of the findings of this investigation must be considered with certain restrictions by inherent limitations of sample and methodology. The convenience sample of the subjects may have introduced bias in that only those with a certain personality and value structure (ones who felt certain about their interpersonal skills and about their nurse-client relationships) volunteered. The Hogan Empathy Scale was not administered under controlled conditions in all respects. It was administered individually under the supervision of the researcher's presence. However, it was administered at the convenience of each subject at different settings and times. Although all precautions were taken to avoid contamination, intrasession historical difference may have added some

variability to individual scores obtained.[1] Further the Empathy Scale may have functioned as a value statement and suggested responses or stimulated an interest that the subject did not ordinarily hold.

For all the reasons stated above and for increased generalizability of these findings, replication is recommended with a larger sample size and with a greater and different geographical area to determine if the findings in this study are representative of other groups. Replication utilizing the same instruments would confirm the validity and reliability of their use especially if most of the findings are repeated with another sample. Subsequently, in view of the contrary findings about the reality of nurses' empathic ability versus the clients' perception of nurse empathy, a study using another method of assessing client perception would be appropriate. This method might include the more direct participant-observation of nurse-client interaction or through investigation of outcome criteria of care. Consideration should be given to modification of client selection procedures. With the recommended changes in the selection of the sample and suggested

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[1]Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs (Chicago: Rand McNally, 1966), pp. 13-14.

methodology it is expected that the results would be less restricted.

A study utilizing sex as a variable would be timely, if a sufficient number of male nurses can be tested to provide a sufficiently large sample when an equal number of female nurses are included. This would yield data for prescriptive purposes. One immediate need involves the facilitation of the adjustment of males into the female dominated discipline.

Longitudinal follow up studies of the high empathy scorers to look at characteristics, attitudes, values, satisfactions, and accomplishments may add data which would have implications to nursing educators and to nursing practice administrators. This may best be accomplished when replication is completed and a truly representative sample of high scorers can be evaluated.

The possibilities for further studies are numerous in considering (1) different samples; (2) the relationship of empathic ability with additional variables, both personal and professional, that may affect the quality of care; and (3) the interrelationships between and among the educational preparation, the psychosocial characteristics of the practitioners, and the organization of the work setting.

APPENDICES

APPENDIX A

CONSENT FORMS

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

Agency Permission for Conducting Study

The _____
(institution or agency)

GRANTS TO Garyfallia L. Forsyth
(student)

enrolled in a program of nursing leading to a Doctor of Philosophy degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

A copy of the proposal is attached.

_____ _____
Date Signature of Agency Personnel

_____ _____
Signature of Student Signature of Faculty Advisor

Fill out and sign three copies to be distributed as follows:
Original - Student
First copy - Agency
Second copy - T.W.U. College of Nursing

TEXAS WOMAN'S UNIVERSITY
RESEARCH INSTITUTE
DENTON, TEXAS 76204

BONE METABOLISM LABORATORY
BOX 23546, TWU STATION
PHONE (817) 387-5305

April 26, 1976

Mrs. Garyfallia L. Forsyth
Texas Woman's University
Denton, Texas

Dear Mrs. Forsyth:

The Human Research Review Committee has reviewed and approved your protocol for dissertation, "Exploration of Empathy in Nurse-Client Interaction."

You are reminded that documentation of informed consent should be retained in your files in regard to the above-referenced project.

Sincerely yours,

George P. Vose, Chairman
Human Research Review Committee

RESEARCH AND INVESTIGATION INVOLVING HUMANS

Statement by Program Director and Approved by Department Chairman

This abbreviated form is designed for describing proposed programs in which the investigators consider there will be justifiable minimal risk to human participants. If any member of the Human Research Review Committee should require additional information, the investigator will be so notified.

Copies of this Statement and a specimen Statement of Informed consent should be submitted at the earliest possible time before the planned starting date to the chairman or vice chairmen listed below:

Denton Campus (Submit five copies)

George P. Vose, Chairman
Calvin Janssen, Vice-Chairman
Marjorie Keele
Aileene Lockhart
Carolyn Rozier

Houston Campus (Submit five copies)

Dallas Campus (Submit four copies)

Title of Study: EXPLORATION OF EMPATHY IN NURSE-CLIENT INTERACTION

Program Director(s): Dr. Elaine Mansfield

Dr. Peggy Chinn

Graduate Student: Garyfallia L. Forsyth

Estimated beginning date of study: June 1976 Estimated duration 9 mos.

1. Brief description of the study (use additional pages or attachments, if desired, and include the approximate number and ages of participants, and where they will be obtained.

A description of the study is attached. Thirty-two nurses and thirty-two adult patients will serve as subjects. All subjects will be obtained at and at one

2. What are the potential risks to the human subjects involved in this research or investigation? "Risk" includes the possibility of public embarrassment and improper release of data. Even seemingly nonsignificant risks should be stated and the protective procedures described in (3) below.

None - Administration of tests and inventories will be carried out by the researcher and data will at all times be in the researchers possession.

3. Outline the steps to be taken to protect the rights and welfare of the individuals involved:

The proposal has been approved by the College of Nursing Doctoral Screening Committee. The Agency Permission for Conducting Study will be submitted to the agencies. The plan of the study and schedule will be submitted to the agencies through appropriate channels. Written consent of all subjects will be requested as they are accepted into the study. They will be made aware of the significance of the research as well as their ability to withdraw from the investigation at any point without penalty. Methods and procedures will be carefully explained and a schedule for sharing outcomes will be scheduled.

4. Outline the method for obtaining informed consent from the subjects or from the person legally responsible for the subjects. Attach documents, i.e., a specimen informed consent form. (These may be properly executed through completion of either (a) the written description form, or (b) the oral description form which are available from the committee chairmen or may be reproduced from the attached specimen copies.)

Written consent of each subject, nurse and client, will be used.

A specimen informed consent form for the nurse subject and for the client subject is attached.

5. If the proposed study includes the administration of personality tests, inventories, or questionnaires, indicate how the subjects are given the opportunity to express their willingness to participate. If the subjects are less than the age of legal consent, or mentally incapacitated, indicate how consent of parents, guardians, or other qualified representatives will be obtained:

Subjects will be given the opportunity to express their willingness (in writing) to participate. They will also be made aware of their right to withdraw without penalty. Incapacitated subjects or subjects of less than legal age will not be obtained as subjects.

The participants will be informed from beginning of selection and throughout the project. They will be apprised of the nature of the procedures involved and the time and effort involved.

(Signed) Peggy S. Chinn — May 10, 1976
Program Director — Date

(Signed) Gary Patrick L. Forsyth — May 10, 1976
Graduate Student — Date

(Signed) [signature] — May 10, 1976
Dean, Department Head, or Director — Date

Date received by committee chairman: _____

DESCRIPTION OF THE STUDY

Statement of Purpose:

The immediate objective of this study is the production of data about the empathic levels of nurses as they interact with clients. Process and outcome studies concerning the nature of the helping relationship in other disciplines are available; however, in nursing only a slight prelude has been made to the study of the components of the nurse-client relationship which makes a difference to effective outcomes of nursing care.

Long term objectives involve subsequent testing of hypotheses, suggested by the findings in the initial exploratory study, to arrive at conclusions which will be useful in prediction and control of nursing events to insure elimination of problems of patient care. This end goal will not be realized until the foundation for it has been accomplished.

Procedures:

The study sample will consist of thirty-two randomly selected nurses and the clients who are assigned to the selected nurses. The empathic ability of nurses will be measured by the Hogan Empathy Scale. Tests of correlation between the empathic ability of nurses and selected personal variables of age; marital status; parenthood; educational

preparation; length, level, and area of practice will be carried out using Pearson r and analysis of variance. This analysis of the data will determine whether nurses according to marital status; parenthood; length of education; length, level, and area of practice vary in empathic ability, characteristics, and behavior. A stepwise multilinear regression model will be constructed to ascertain the predictor value of the above listed independent variables.

Nurse-client interaction outcomes, defined operationally as measured by the client form of the Barrett-Lennard Relationship Inventory, will be ascertained. Tests of correlation will be performed between the client's perception of nurse empathy and the empathic ability level of the nurse.

Expected Outcomes:

The determination of the empathic levels at which nurses in practice function should be of consequence to the profession of nursing as it struggles in its efforts to maintain relevancy and viability in our ever changing world. The basic nurse-patient relationship has long required study which is directed toward enhancement of the relationship for both participants. This study will examine what is considered by the investigator to be the element basic to response and action toward growth - empathy. To the extent that nurses are committed to therapeutic goals of nursing, the findings of this research will be significant.

TEXAS WOMAN'S UNIVERSITY

(Form A) Nurse Form

Consent to Act as a Subject for Research and Investigation:

(The following information is to be read to or read by the subject):

1. I hereby authorize Garyfallia L. Forsyth
(Name of person(s) who will perform procedure(s) or investigation(s)

to perform the following procedure(s) or investigation(s):
(Describe in detail)

A. to respond to a request for personal and professional information based on age; marital status; number of children; education; length, level, and area of nursing practice.
B. to submit to a pencil and paper test which is designed to study the nature of the nurse-client interaction.

2. The procedure or investigation listed in Paragraph 1 has been explained to me by Garyfallia L. Forsyth.
(name)

3. I understand that the procedures or investigations described in Paragraph 1 involve the following possible risks or discomforts:
(Describe in detail)

None. Confidentiality is assured and no risk, discomfort, or stress is involved except that which the individual may experience normally in test taking or in conducting themselves in pursuit of professional affairs.

TEXAS WOMAN'S UNIVERSITY

(Form A - continuation)

4. I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or others:

They will assist nurses in their efforts to increase the effectiveness of their practice, especially in the area of nurse-client relationships. This effort will help meet the expressed needs of clients everywhere.

5. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. I understand that I may terminate my participation in the study at any time.

_____ _____
Subject's signature Date

(If the subject is a minor, or otherwise unable to sign, complete the following):

Subject is a minor (age_____), or is unable to sign because:

Signatures (one required)

_____ _____
Father Date

_____ _____
Mother Date

_____ _____
Guardian Date

TEXAS WOMAN'S UNIVERSITY

(Form A) Client Form

Consent to Act as a Subject for Research and Investigation:

(The following information is to be read to or read by the subject):

1. I hereby authorize Garyfallia L. Forsyth
(Name of person(s) who will perform procedure(s) or investigation(s)

to perform the following procedure(s) or investigation(s): (Describe in detail)

A. to administer a written test which will allow me to say how I feel about the interaction of one nurse who usually talks to me. I will be asked to place a checkmark by thirty-two statements which will describe how I perceive the nurse.

2. The procedure or investigation listed in Paragraph 1 has been explained to me by Garyfallia L. Forsyth.
(name)

3. I understand that the procedures or investigations described in Paragraph 1 involve the following possible risks or discomforts: (Describe in detail)

None. Confidentiality has been assured and the results of the evaluation will not be shared with the nurse who is evaluated by me.

TEXAS WOMAN'S UNIVERSITY

(Form A - continuation)

4. I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or others:

I will share in this study which is important to the efforts of the nursing profession to define, control, and be accountable for its practice. My participation will make possible an exploratory study whose purpose is to examine the nurse-client interaction and identify factors which result in a productive and an effective relationship.

5. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. I understand that I may terminate my participation in the study at any time.

_____ _____
Subject's signature Date

(If the subject is a minor, or otherwise unable to sign, complete the following):

Subject is a minor (age_____), or is unable to sign because:

Signatures (one required)

_____ _____
Father Date

_____ _____
Mother Date

_____ _____
Guardian Date

PHYSICIANS' CONSENT REQUEST

Cherry Hills #404
Telephone 683-5242

Dear Doctor:

I am a registered nurse and a doctoral candidate in the College of Nursing at the Texas Woman's University. Presently I am collecting data for doctoral research on "Exploration of Empathy in Nurse-Patient Interaction." This research was reviewed and approved by Administration, the Director of Nursing Service, and the Medical Research Committee.

May I have your permission to approach _____ who was referred by one of the staff nurses who is a part of this study. Your patient will be administered a brief interaction relationship inventory which will disclose how he or she perceives the empathic ability of the nurse.

All information will be held in strictest confidence and research ethics will be closely observed. If you would like to meet with me to discuss the study, I would be pleased to make an appointment. Otherwise, please indicate your decision on this note, personally, or on the patient's clinical chart, whichever method is more convenient for you. I may be reached through the Nursing Service Office or at the above address and telephone number.

Thank you for your time and consideration.

Sincerely,

Garyfallia L. Forsyth

Garyfallia L. Forsyth, R.N., M.S.N.

APPENDIX B

METHOD NOTES

PERSONAL INFORMATION FORM

This form elicits minimal factual data needed for the research. The data will be analyzed by computer and names will not be used in reporting results.

CODE NUMBER: _____

AGE:

Years _____ Months _____

MARITAL STATUS:

_____Single

_____Married

_____Divorced

_____Widowed

NUMBER OF CHILDREN:

_____

EDUCATION:

_____Diploma

_____A.A. Degree

_____B.A. Degree

_____B.S.N. Degree

_____M.S. Degree

_____M.S.N. Degree

_____M.S.+

LENGTH OF PRACTICE:

Years _____ Months _____

LEVEL OF PRACTICE:

_____Staff nurse

_____Head nurse

_____Supervisor

_____Clinical specialist

AREA OF PRACTICE:

_____

THE HOGAN SPECIAL ATTITUDE SCALE

This booklet contains a series of statements. Read each one, decide how you feel about it, and then mark your answer on the special answer sheet. If you agree with a statement, or feel that it is true about you, answer TRUE. If you disagree with a statement, or feel that it is not true about you, answer FALSE.

Circle True or False for each

PART ONE			PART TWO	
1. T F	17. T F		32. T F	
2. T F	18. T F		33. T F	
3. T F	19. T F		34. T F	
4. T F	20. T F		35. T F	
5. T F	21. T F		36. T F	
6. T F	22. T F		37. T F	
7. T F	23. T F		38. T F	
8. T F	24. T F		39. T F	
9. T F	25. T F			
10. T F	26. T F			
11. T F	27. T F			
12. T F	28. T F			
13. T F	29. T F			
14. T F	30. T F			
15. T F	31. T F			
16. T F				

DO NOT WRITE ON THIS BOOKLET

PART I

1. A person needs to "show off" a little now and then.
2. I usually take an active part in the entertainment at parties.
3. I like to have a place for everything and everything in its place
4. I feel sure there is only one true religion.
5. I am afraid of deep water.
6. I have at one time or another tried my hand at writing poetry.
7. I prefer a shower to a tub bath.
8. It bothers me when something unexpected interrupts my daily routine.
9. It is hard for me just to sit still and relax.
10. I always try to consider the other fellow's feelings before I do something.
11. I don't like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.
12. I can remember "playing sick" to get out of something.
13. I like to keep people guessing what I'm going to do next.
14. Before I do something I try to consider how my friends will react to it.
15. I like to talk before groups of people.
16. My parents were very strict and stern with me.
17. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
18. I think I would like to belong to a singing club.
19. I usually don't like to talk much unless I am with people I know well.
20. I think I am usually a leader in my group.

21. I must admit I often try to get my own way regardless of what others may want.

22. I liked "Alice in Wonderland" by Lewis Carroll.

23. I don't really care whether people like me or dislike me.

24. Clever, sarcastic people make me feel very uncomfortable.

25. I have a natural talent for influencing people.

26. The trouble with many people is that they don't take things seriously enough.

27. Only a fool would try to change our American way of life.

28. Most of the arguments or quarrels I get into are over matters of principle.

29. I would like the job of a foreign correspondent for a newspaper.

30. People today have forgotten how to feel properly ashamed of themselves.

31. When a man is with a woman he is usually thinking about things related to her sex.

PART II

32. I frequently undertake more than I can accomplish.

33. I enjoy the company of strong willed people.

34. Disobedience to the government is never justified.

35. I have a pretty clear idea of what I would try to impart to my students if I were a teacher.

36. I am usually rather short-tempered with people who come around and bother me with foolish questions.

37. It is the duty of a citizen to support his country, right or wrong.

38. I have seen some things so sad that I almost felt like crying.

39. As a rule I have little difficulty in "putting myself into other people's shoes."

Items in Part I reproduced by special permission from the California Psychological Inventory by Harrison G. Gough, copyright 1956, published by Consulting Psychologists Press, Inc.

Items in Part II reproduced by permission of Dr. D. W. MacKinnon, Director, Institute of Personality Assessment and Research, 2240 Piedmont Avenue, Berkeley, California.

THE RELATIONSHIP INVENTORY, CLIENT FORM

In an effort to improve nurse-client interaction, I am looking at perceptions of clients about the behaviors of nurses who take care of them. You can help by answering the following questions about the care you had today. PLEASE BE FRANK AND HONEST IN YOUR ANSWERS. OTHERWISE THE RESULTS WILL NOT BE VERY USEFUL. THE NURSES THEMSELVES WILL NOT SEE YOUR RESPONSES. Thank you for your help.

Below are listed various ways that a client could feel in relation to his nurse. Please consider each statement with respect to whether you think it is true or not true in your relationship with your nurse today.

Mark each statement in the left margin according to how strongly you feel it is true or not true. Please mark every one. Write +1, +2, +3; or -1, -2, -3, to stand for the following answers:

+1: I feel that it is probably true, or more true than untrue.

+2: I feel it is true.

+3: I strongly feel that it is true.

-1: I feel that it is probably untrue, or more untrue than ture.

-2: I feel it is not true.

-3: I strongly feel that it is not true.

When you have completed the form, please fold it and place it in the addressed envelop and seal it.

IT WILL BE COLLECTED BY THE NURSE RESEARCHER. THANK YOU.

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___ 1. She tried to see things through my eyes.

___ 2. She respects me.

___ 3. She understood my words but not the way I felt.

___ 4. She disapproved of me.

___ 5. She was interested in knowing what me experiences meant to me.

___ 6. She liked caring for me.

___ 7. She nearly always knew exactly what I meant.

___ 8. She was indifferent to me.

___ 9. Sometimes she thought that I felt a certain way, because she felt that way.

___10. She was friendly and warm toward me.

___11. At times she jumped to the conclusion that I felt more strongly or more concerned about something than I actually did.

___12. She appreciates me

___13. Her own attitudes toward some of the things I said, or did, stopped her from really understanding me.

___14. She cares about me.

___15. She understood what I said, from a detached, objective point of view.

___16. She felt that I was dull and uninteresting.

___17. She appreciated what my experiences feel like to me.

___18. She just tolerated me.

___19. She usually understood all of what I said to her.

___20. She does not really care what happens to me.

___21. She understands me.

___22. She seems to really value me.

___23. She does not realize how strongly I feel about some of the things we discussed.

___24. She dislikes me.

___25. She responded to me mechanically.

___26. She was impatient with me.

___27. When I did not say what I meant at all clearly she still understood me.

___28. She regarded me as a disagreeable person.

___29. She tried to understand me from her own point of view.

___30. She felt deep affection for me.

___31. She can be deeply and fully aware of my most painful feelings without being distressed or burdened by them herself.

___32. At times she felt contempt for me.

HOGAN EMPATHY SCALE SCORES

Code Number	Score	Code Number	Score
N01W	21	N20W	25
N02W	19	N21W	21
N03W	27	N22W	26
N04W	22	N23W	23
N05W	31	N24W	22
N06W	18	N25W	24
N07W	21	N26W	24
N08W	25	N27W	17
N09W	21	N28W	25
N10W	16	N29W	24
N11W	18	N30W	27
N12W	22	N31W	23
N13W	23	N32W	18
N14W	27	N33W	27
N15W	18	N34W	23
N16W	29	N35W	14
N17W	21	N36W	20
N18W	26	N37W	18
N19W	17	N38W	26

The Hogan Empathy Scale is the instrument used by the researcher in the study "Exploration of Empathy in Nurse-Client Interaction" as a measure of empathy. The extensive research on the construction and empirical validation of this scale was conducted at the University of California at Berkeley and was reported by Hogan.[1] An empathic individual (defined operationally by his high scores on Hogan's scale) is one who possesses a keen insight, imaginative perceptiveness, and social acuity about the other person. He is thus not only aware of his own motives and the impressions that he makes on others, but also he is socially skilled and perceptive of a wide range of interpersonal cues in human relationships.

The upper, middle, and low levels of empathy scores have been arbitrarily determined by the researcher as follows:

Upper Level - 27 to 39
Middle Level - 14 to 26
Low Level - 1 to 13

---

[1]Robert Hogan, "Development of an Empathy Scale," Journal of Consulting Clinical Psychology 33 (1969): 307.

HOGAN EMPATHY SCALE SCORES

Code Number	Score	Code Number	Score
N39D	25	N57D	21
N40D	23	N58D	24
N41D	19	N59D	24
N42D	19	N60D	34
N43D	19	N61D	26
N44D	28	N62D	26
N45D	24	N63D	15
N46D	27	N64D	24
N47D	18	N65D	23
N48D	26	N66D	25
N49D	20	N67D	18
N50D	28	N68D	23
N51D	23	N69D	21
N52D	28	N70D	25
N53D	28	N71D	29
N54D	19	N72D	27
N55D	27	N73D	13
N56D	26	N74D	32

The Hogan Empathy Scale is the instrument used by the researcher in the study "Exploration of Empathy in Nurse-Client Interaction" as a measure of empathy. The extensive research on the construction and empirical validation of this scale was conducted at the University of California at Berkeley and was reported by Hogan.[1] An empathic individual (defined operationally by his high scores on Hogan's scale) is one who possesses a keen insight, imaginative perceptiveness, and social acuity about the other person. He is thus not only aware of his own motives and the impressions that he makes on others, but also he is socially skilled and perceptive of a wide range of interpersonal cues in human relationships.

The upper, middle, and low levels of empathy scores have been arbitrarily determined by the researcher as follows:

Upper Level - 27 to 39
Middle Level - 14 to 26
Low Level - 1 to 25

---

[1]Robert Hogan, "Development of an Empathy Scale," Journal of Consulting Clinical Psychology 33 (1969): 307.

EXPLORATION OF EMPATHY IN NURSE-CLIENT INTERACTION
PILOT STUDY OF THE RESEARCH PROPOSAL

ABSTRACT

GARYFALLIA L. FORSYTH

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
April 1976

The problem of this pilot study was the administration and evaluation of two measurement tools of empathy. The purposes were concerned with (1) development of procedural proficiency; (2) identification of problems inherent in administration; and (3) decision making in relation to selection of research instruments for use in the major study.

Carl Rogers' theories of personality and psychotherapy form the theoretical framework for this study. The experiences that are perceived as threatening are those that are inconsistent to the self. Under facilitative conditions offered by a helping person, the individual may perceive, examine, and internalize the previously inconsistent experiences. The most critical component of the therapeutic interaction is empathy.

The general design was based on the testing of two tools for measurement. Empathic ability of five nurses was

measured by the Hogan Empathy Scale. The interactive empathic ability of eleven nurses was assessed by the Carkhuff Empathy Scale. Five were tested using the written stimulus and response statements and six were tested with an audio presentation of the stimulus statements to which a response was made in writing.

The findings and conclusions based on the stated purposes are as follows: (1) procedural proficiency was markedly increased with each administration of the research instruments; (2) administrative problems were identified (agency permission was not granted for two measurement tools and the nurses were unable and/or not willing to rate the Carkhuff tool), and (3) selection of the Hogan Scale and the Barrett-Lennard Relationship Inventory was made for use in the implementation of the research proposal.

The Pilot Study was valuable in validating the design and methods for the research proposal as well as providing confidence for the investigator that the study was feasible and offered promise for significant contribution to nursing knowledge.

ESTIMATE BUDGET

The budget for completion of the research study was estimated as follows:

Criterion Measure Costs	
Hogan Empathy Scale (for duplication only)	$ 15.00
Barrett-Lennard Relationship Inventory (for duplication only)	15.00
Dissertation Costs	
Supplies and Materials	150.00
Travel for data collection to sites in Texas and Kansas	850.00
Typing first draft	60.00
Typing proposal	60.00
Typing dissertation copy	225.00
Statistician consultation	60.00
Duplication of proposal	30.00
Duplication of dissertation for oral presentation	30.00
Duplication of final copy	160.00
Binding cost (10 copies at $5.00 each)	50.00
Microfilming	30.00
Copyright	15.00
Total	$1800.00

APPENDIX C

RAW DATA

RAW DATA

I.D. Number	Empathic ability	Age	Marital Status	Parenthood	Education	Length of practice	Level of practice	Area of practice	Client perception of nurse empathy
01	21	361	0	0	2	0800	1	1	73
02	19	349	1	0	1	0800	1	1	73
03	27	240	1	0	2	0025	1	1	59
04	22	600	1	1	1	2850	1	2	80
05	31	510	1	1	1	2100	2	3	58
06	18	522	1	1	1	2200	2	3	59
07	21	610	1	1	1	2600	1	3	58
08	25	263	1	1	1	0075	1	1	21
09	21	312	1	0	1	0500	1	1	69
10	16	471	1	1	1	0900	1	1	72
11	18	372	1	1	1	0125	1	1	66
12	22	364	2	1	1	0500	2	3	69
13	23	393	1	1	1	0700	1	3	65
14	27	295	1	0	1	0125	1	3	52
15	18	564	1	1	1	1750	1	3	51
16	29	453	0	0	1	1600	2	4	73
17	21	594	1	1	1	1000	1	1	62
18	26	325	1	1	1	0500	1	1	77
19*	17	455	1	1	1		1	2	
20	25	466	1	1	1	1000	1	2	66
21	21	516	1	1	1	0850	1	4	52
22	26	477	1	1	1	0875	1	4	66
23	23	539	1	1	1	2000	1	4	62
24*	22	543	1	1	1		1	3	
25	24	309	1	1	3	0350	1	2	86
26	24	288	0	0	1	0050	1	2	66
27	17	672	3	1	1	2900	1	2	63
28	25	266	1	1	1	0050	1	3	60

*Omitted from analysis.

I.D. Number	Empathic ability	Age	Marital Status	Parenthood	Education	Length of practice	Level of practice	Area of practice	Client perception of nurse empathy
29	24	300	1	0	3	0650	1	5	80
30	27	576	0	0	1	2700	2	5	76
31	23	348	1	1	1	0700	1	5	69
32	18	612	1	1	1	1000	1	5	64
33	27	240	1	0	1	0050	1	4	43
34	23	324	1	0	1	0600	1	4	59
35	14	552	1	1	1		1	4	
36	20	276	1	0	2	0175	1	4	71
37	18	660	1	1	1		2	4	
38	26	288	1	0	3	0225	1	5	64
39	25	535	1	0	3	2300	2	1	80
40	23	398	1	1	3	1050	1	1	81
41	19	444	1	1	1	1675	1	1	56
42	19	510	1	1	1	1825	1	2	49
43	19	631	1	1	1	1550	2	2	54
44	28	516	2	1	3	0025	1	2	64
45	24	452	1	1	3	0400	1	3	65
46	27	378	2	0	3	0375	2	1	80
47	18	576	1	0	3	2275	1	1	65
48	26	444	2	0	1	0750	1	1	82
49	20	524	1	1	1	0400	1	1	77
50	28	393	1	1	3	0150	2	1	88
51	23	385	1	1	2	0300	1	1	62
52	28	374	1	1	2	0050	1	1	72
53	28	322	1	0	3	0150	1	1	87
54	19	287	1	0	3	0150	1	1	81
55	27	492	1	1	1	1800	2	3	67
56	26	309	1	0	1	0325	1	3	91
57	21	483	1	1	1	1700	2	4	96
59	24	372	0	0	3	0900	1	1	72
59	24	512	1	1	2	0150	1	4	87
60	34	395	1	0	3	0150	1	4	88

I.D. Number	Empathic ability	Age	Marital Status	Parenthood	Education	Length of practice	Level of practice	Area of practice	Client perception of nurse empathy
61	26	386	1	1	3	1025	1	4	80
62	26	552	2	1	2	1200	1	4	86
63	15	650	0	0	1	3200	2	4	88
64	24	552	2	1	3	2000	2	3	75
65	23	511	2	1	2	0125	1	5	79
66	25	379	0	0	1	1025	1	2	74
67	18	319	1	0	3	0300	1	2	78
68	23	730	1	1	3	3600	2	2	72
69	21	307	0	0	3	0375	1	2	87
70	25	402	1	0	3	1200	2	2	83
71	29	552	1	0	1	2400	2	2	78
72	27	265	1	1	3	1500	1	2	74
73	13	307	2	0	1	2150	1	2	78
74	32	731	1	1	3	4000	1	2	85

DESCRIPTIVE STATISTICS SUMMARY FOR ALL VARIABLES

Variable	Score Range	Groups	N	%	X	SD
X_1 Empathic Ability	0 - 39	13 - 34				
	~~27 - 39~~	Upper	16 ~~11~~	23	28.5	
	14 - 26	Middle	53 ~~48~~	76	22.0	
	0 - 13	Lower	1 ~~11~~	1	13.0	
Total			70 ~~70~~	100	23.36	4.10
X_2 Age	20 - 60					
	~~13 - 28~~	20 - 29	21	30	23.52	3.73
	16 - 34	30 - 39	21	30	24.05	4.14
	18 - 31	40 - 49	19	27	23.58	3.96
	15 - 32	50 - 50	9	13	20.89	4.89
Total			70	100	23.36	4.10
X_3 Marital Status		Single	8	11	23.25	4.30
		Married	53	76	23.45	4.00
		S.-W.-D.	9	13	22.89	4.96
		~~Married~~	~~53~~	~~76~~	~~23.45~~	~~4.00~~
		Not Married	17	24	23.06	4.52
Total			70	100	23.36	4.10
X_4 Parenthood		Parents	29	41	23.72	4.60
		Not Parents	41	59	23.10	3.75
Total			70	100	23.36	4.10
X_5 Education		Diploma	40	59	22.38	4.18
		AA Degree	8	11.5	24.00	2.83
		BSN Degree	22	31.5	24.91	3.96
Total			70	100	23.36	4.10
X_6 Length of Practice		Under 2 yrs	16	23	25.31	4.03
		2 - 5	12	17	23.17	2.82
		6 - 10	14	20	22.14	2.98
		11- 20	15	21	23.40	3.48
		21- 30	13	19	22.38	6.13
Total			70	100	23.36	4.10
X_7 Level of Practice		Staff nurse	54	77	23.06	3.99
		Head nurse	16	23	24.38	4.46
Total			70	100	23.36	4.10
X_8 Area of Practice		Medical	22	31.5	22.82	3.79
		Surgical	17	24	23.00	4.81
		Psychiatric	12	17	23.83	3.79
		Orthopedic	6	8.5	23.50	3.15
		Rehab.	1	19	24.23	4.68
Total			70	100	23.36	4.10
X_9 Client Perception of Nurse Empathy	21 - 96				70.64	12.92

SIGNIFICANT CORRELATION AND COMPARISON FINDINGS FOR ALL VARIABLES

r	R	r_{pbi}	ANOVA-F	Significance level= 0.05	
				Stepwise Multiple Regression	
				All Variables	Selected Variables
with length of practice 0.7618					
				Step 5 0.0363	
with empathic ability 0.2844	p=0.0356 for predictive correlation accounts for 7% of total 16% variance		2.9783 p=0.0577 Duncan's range test significant at 0.05 for difference between Groups 1 and 3 means	Step 1 0.0170	Step 1 0.0170
				Step 3 0.0332	Step 2 0.0333
		with length of practice 0.4216 p=>0.01		Step 4 0.0203	
				Step 2 0.0241	
with education 0.4253					

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