

AN ABSTRACT OF THE THESIS OF

KAREN BLOMQUIST MISCHKE for the degree of Doctor of
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Patient

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Abstract approved: _____

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One forty-item questionnaire (Cancer Nursing Outreach Program Evaluation Tool) and one twenty-item questionnaire (Cancer Attitude Survey) were submitted to a randomly selected population of 200 employed associate, diploma and baccalaureate degree nurses distributed among numerous practice settings in the State of Oregon. Data were analyzed using Analysis of Variance (fixed design), Exact Tukey q and Pearson Product Moment Correlations.

Selected Findings

The three-way analysis of variance revealed that statistically significant differences existed among nurses' attitude mean scores based on location of nursing practice, clinical exposure to cancer patients and educational

achievement.

Nurses practicing in the community obtained more positive attitude mean scores than did nurses practicing in the hospital. Nurses caring for six or more cancer patients each month for one year achieved more positive mean scores than did nurses without this exposure. Nurses completing two didactic cancer theory courses (102 hours) obtained more positive mean scores than nurses without this education. Hospital-based nurses with educational achievement had significantly higher mean scores than did the hospital-based nurses without educational exposure. However, community-based nurses with or without educational achievement obtained more positive mean scores than did the hospital-based nurses with educational achievement.

Selected Recommendations

1. Nurses contemplating employment in the field of oncological nursing could be assisted with examination of their attitudes by using an attitudinal measurement instrument.
2. The effects of location of nursing practice, clinical exposure and educational achievement on the attitudes of nurses toward cancer and the cancer patient could serve as a basis for determining ongoing attitudinal trends.
3. An evaluation of the unique patterns of attitudes currently existing within a cancer staff and a comparison of these patterns with other cancer and non-cancer health care professionals should be made.

4. Cancer educational programs identified as important for hospital and community based nurses could be established and made accessible to nurses by the organizations and institutions employing them.

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ATTITUDES OF NURSES
TOWARD CANCER AND THE CANCER PATIENT

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Typed by Janet Eckelman for Karen Blomquist Mischke

This book is lovingly dedicated
to my parents
without whose great love and understanding
it would not have been completed

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"soli Deo gloria"

TABLE OF CONTENTS

I.	Introduction	1
	Statement of the Problem	2
	Objectives	3
	Background Information	4
	Limitations of the Study	10
	Definitions of Terms	10
II.	Review of Literature	14
	Personality Characteristics of Nurses	14
	Attitudes of Nurses Toward Nursing Practice	23
	Attitudes of Nurses Toward Cancer Patients and Cancer as a Disease Entity	29
III.	Design of the Study	39
	The Population	39
	The Study Design	58
	The Instruments	59
	The Hypotheses Tested	63
	The Method of Analysis	63
	The Mathematical Model	66
IV.	Presentation of Findings	72
	Computational Findings for Hypotheses One through Seven	73
	Correlations for Demographic Character- istics	110
	Summary	113
V.	Summary, Conclusions and Recommendations	118
	Summary	118
	Conclusions	125
	Recommendations for Action	131
	Suggestions for Additional Study	134
VI.	Bibliography	136
VII.	Appendices	
	Appendix A. Agencies Requiring Permission Letters	147
	Appendix B. Verbal Orientation Statement For Cancer Attitude Survey	152
	Written Orientation Statement For Cancer Attitude Survey	152
	Appendix C. Basic Instruments for Attitude Measurement Instruments	156

TABLE OF CONTENTS (continued)

Appendix D.	Description of Instruments	159
Appendix E.	Procedure for Instrument Procurement	163
Appendix F.	Grouping Designations for Sample	166
Appendix G.	Three-Way Analysis of Variance (Fixed Design) Findings	171
Appendix H.	Mean Scores and Standard Deviations	176
Appendix I.	Hutchinson Cancer Research Center Sample Mean Scores and Standard Deviations	179
Appendix J.	Permission Letter for Instrument Use	181

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1.	CNOP Mean Scores for Interaction Effect Between Location of Nursing Practice and Educational Achievement	95

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Age Range of Population	40
2	Marital Status of Population	41
3	Current Nursing Position	42
4	Current Working Status	43
5	Time Employed in Present Position	43
6	Time Period Worked	44
7	Years of Full-time Employment	45
8	Basic Nursing Education	46
9	Academic Degrees Subsequent to Basic Nursing Education	46
10	Cancer Education Provided in Basic Nursing Educational Program	47
11	Continuing Education Requirement and Salary Change	48
12	Financial Reimbursement for Continuing Education	49
13	Number of Nursing Articles Read, Journal Subscriptions and Professional Nursing Organization Memberships	50
14	Number of Cancer Patients Cared for by Nurses	51
15	Number of Nurses with and without Educational Achievement	52
16	Close Family Members with Cancer Diagnosis	52
17	Most Difficult Aspects of Working with Cancer Patients	54

<u>Table</u>		<u>Page</u>
18	Nurse Perceptions of Cancer Patient Needs	55
19	What Nurses Like Most About Caring for Cancer Patients	56
20	Continued Friendships Between Nurse and Patient	57
21	Study Design	59
22	Internal Consistency Coefficients for Two Measurement Instruments	62
23	Three-Way Analysis of Variance (Fixed Design) Cell Size Designation	66
24	Three-Way Analysis of Variance (Fixed Design) Decision Matrix	68
25	Source of Variation: Location of Nursing Practice	75
26	CAS: Sample Mean Scores for Location of Nursing Practice	76
27	Source of Variation: Clinical Exposure	78
28	CNOP: Sample Mean Scores for Clinical Exposure	79
29	CAS: Sample Mean Scores for Clinical Exposure	81
30	Source of Variation: Educational Achievement	83
31	CAS: Sample Mean Scores for Educational Achievement	85
32	Source of Variation: Location of Nursing Practice and Clinical Exposure	87
33	CNOP: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Clinical Exposure	89

<u>Table</u>	<u>Page</u>	
34	CAS: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Clinical Exposure	90
35	Source of Variation: Location of Nursing Practice and Educational Achievement	92
36	CNOP: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Educational Achievement	94
37	CAS: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Educational Achievement	97
38	Source of Variation: Clinical Exposure and Educational Achievement	99
39	CNOP: Sample Mean Scores and Mean Score Differences for Clinical Exposure and Educational Achievement	101
40	CAS: Sample Mean Scores and Mean Score Differences for Clinical Exposure and Educational Achievement	102
41	Source of Variation: Location of Nursing Practice and Clinical Exposure and Educational Achievement	105
42	CNOP: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Clinical Exposure and <u>No</u> Educational Achievement	106
43	CNOP: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Clinical Exposure and Educational Achievement	107

<u>Table</u>		<u>Page</u>
44	CAS: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Clinical Exposure and <u>No</u> Educational Achievement	108
45	CAS: Sample Mean Scores and Mean Score Differences for Location of Nursing Practice and Clinical Exposure and Educational Achievement	109
46	Correlation Coefficients for Five Demographic Characteristics	111
47	Correlation Coefficients for Demographic Characteristics and Dependent Variables	113
48	Summary of Findings for Hypotheses Tested Using Three-Way Analysis of Variance (Fixed-Design) F Statistic	116

ATTITUDES OF NURSES
TOWARD CANCER AND THE CANCER PATIENT

CHAPTER I

INTRODUCTION

Almost 56 million Americans now living (one-in-four) will eventually develop cancer according to the present rate of increase. Over the years, cancer will strike in approximately two of three families. In the 1970's there were an estimated 3.5 million cancer deaths, 6.6 million new cancer cases, and more than 10 million people under medical care for this disease (American Cancer Society, 1981). Silverberg and Lubera's (1983) prediction estimated that 855,000 people would be diagnosed as having cancer and 440,000 would die of the disease in 1983.

An individual presented with the diagnosis of cancer confronts one of the greatest stress situations of life. Much of the fear, panic and stress experienced is a result of the negative meaning society holds toward this disease (Donovan & Pierce, 1976). Gonzales (1976) stated that "heart disease, not cancer, is our leading killer. But cancer is the one we fear the most" (p.9).

Donovan and Pierce (1976), as well as others, (Calman & Paul, 1978; Cooper, Bean, Alpert & Baum, 1980), suggested that the negative and fearful attitudes held by society were a manifestation of certain beliefs toward cancer as a disease entity. For example, cancer is a disease of the unclean and lower class; cancer is a retribution by a supernatural or subconscious power for wrongdoing; or, cancer is an unspeakable mysterious horror. Brooks (1979) stated that "one is left with a strong impression that cancer is seen to be very threatening, the most dreaded of all diseases, rarely, if ever, curable and largely unavoidable" (p. 457).

It seems that the best ways to correct the biased stereotypes and misconceptions surrounding cancer are through sound education, dissemination of accurate information, alleviation of the secrecy and mystery surrounding the disease, and aggressive management of problems attendant in cancer patients (Donovan & Pierce, 1976). Obviously, health professionals in general, and nurses in particular, must lead the way. If nurses who are in continual contact with cancer patients do not alter their negative feelings, the lay public can hardly be expected to do so.

Statement of the Problem

The central problem of this study was to examine the

attitudes of nurses toward the cancer patient and the disease entity, cancer, and to determine if location of nursing practice, clinical exposure and educational achievement influenced these attitudes.

Objectives

1. To review existing research literature appurtenant to personality characteristics of nurses, attitudes of nurses toward nursing practice and attitudes of nurses toward cancer patients and cancer as a disease entity.
2. To administer two attitude measurement instruments, the Cancer Nursing Outreach Program Affective Evaluation Tool (CNOP) and the Cancer Attitude Survey (CAS), to all study participants.
3. To examine the relationship between the sample mean scores and location of nursing practice, clinical exposure and educational achievement.
4. To examine the relationship between selected demographic characteristics and the sample mean scores.
5. To utilize findings as a basis for making recommendations relative to nursing interventions applicable to the care of cancer patients.

Background of The Study

Cancer is a complex chronic disease that has an impact on the actual and potential patient, the patients' family, multiple health care professionals and society as a whole (Cullen, Fox & Isom, 1976). This degenerative disease is classified as a long-term or terminal illness in that the prognosis given often indicates a time limit on a person's life (Ryder & Ross, 1977). Some individuals believe that a cancer diagnosis is tantamount to a death sentence (McIntosh, 1974).

Technological advances in medicine and the social stigma associated with cancer have perpetuated a phenomenon found among health professionals, as well as the lay public, called "death denying" (Ryder & Ross, 1977; Souhami, 1978). Until recently, this attitude was reflected in the professional education of physicians and nurses and in the social education of the public (Schulz & Aderman, 1976). Glaser and Strauss (1965) reported that nurses tended to "pull away" from terminally ill patients by denying that they were dying. They preferred to focus on the diagnostic and curative aspects of patient care rather than on the caring and rehabilitative parameters. This curative focus seemed to be an implicit drive the nurses had acquired during their educational program (Glaser & Strauss, 1965).

Simonton, Matthews-Simonton and Creighton (1978) found that the lay public tended to "pull away" from cancer patients in somewhat similar ways. This was accomplished by emotional withdrawal, decreased verbal interactions and an unwillingness to discuss death. Some cancer patients reported that friends and relatives physically avoided them, apparently not knowing how to relate any longer since they were already as good as dead (Simonton, Matthews-Simonton and Creighton, 1978).

Cancer patients are sensitive to the subtle nuances of these messages (Derdiarian, 1981). They are aware that cancer is thought by some to be a dreaded disease and that the attitude of the public toward it is one of fright (Glucksber & Singer, 1980; Hayes, 1976; Kaye, 1981). In a poll conducted in 1978 by the American Cancer Society, 49% of those surveyed agreed that the word 'cancer' scared them (Weinberg, Spiker, Ingersoll & Hoersting, 1982).

Several conceptual limitations appurtenant to nurses dealing with the terminally ill and the dying patient were identified by Sheldon, Ryser and Krant (1970). The limitations identified included an inability to perceive the psychological and social needs of the patients and their families and an inability to interact with them in a positive mode. There was a

lack of effective communication among the physicians, nurses and other ward personnel on issues germane to patient care. The health team members also failed to appreciate the emotional and psychological difficulties that characterized their personal reactions to patient's problems.

Research into the attitudes of physicians, nurses and other health care personnel has suggested that strong emotional reactions are frequently evoked in persons treating cancer patients (Mangan, 1967). At the time of diagnosis and treatment, for example, many patients are shuttled from one specialist to another (Ryder & Ross, 1977). This results in fragmentation of care rather than in the integration of health services (Ryder & Ross, 1977). Once the patient has been labeled terminal and the physician has given up hope for recovery, the health care institution often treats the patient as a dying body (Sudnow, 1970). This neglect by the health care providers negates the patient's desire to be informed of his condition and to be treated with respect, kindness and humanness (Schulz & Aderman, 1976).

Nurses must be sensitive to the elements of human dignity and the myriad of differences that exist among patients with special attention being allocated to the cancer patient (Noyes & Clancy, 1977). They must be aware of the manner by which cancer patients respond to personal

care since many of them become nurse dependent. The nurse must convey feelings of compassion and understanding toward the patient in order to assure patient integrity and retention of patient uniqueness (Noyes & Clancy, 1977).

The medical and nursing services provided the cancer patient occur on a continuum of health care from acute to chronic illness. When the patient is acutely ill the care provided usually occurs in the hospital setting. When the patient is in the chronic stages of disease the required care is administered in the community setting (Lack, 1975). Lack (1975) stated that hospitals are routinized for the purpose of curing the acutely ill. Catering to the needs of the cancer patient is, therefore, often done at the risk of disrupting patterns designed specifically for efficient and effective treatment of those patients with rehabilitative potential (Lack, 1975). Nurses employed by hospitals are often required to subscribe to this primarily acute care orientation. Nurses in the community, on the other hand, seem to be organized for the purpose of assisting individuals with chronic or long term health problems. Their nursing-practice efforts are directed toward individualized patient care with a minimization of procedural routine.

Even though there now exists an abundance of knowledge about cancer, health professionals continually add

to what is known, but a store of knowledge alone will never conquer cancer (Cullen, Fox & Isom, 1976). In order to apply knowledge to cancer control, we must learn how to encourage constructive health related attitudes and behaviors both in ourselves and in the lay public (Cooper, Bean, Alpert & Baum, 1980). A major determinant of whether a cancer is detected and treated in its early curable stage or whether it advances to an incurable stage is dependent on the attitude of the patient, physician and nurse (De Ways, 1976). "Deep seated fears often lead to patient denial and delay in seeking medical attention. Patient fear is often a reflection of the physician's fear of this disease" (De Ways, 1976, p. 545).

Green (1970) suggested that there was a positive association between attitudes and beliefs and behavior. However, attitudes and beliefs are frequently inconsistent with behavior. Changes in attitudes and beliefs do not lead inexorably to corresponding changes in behavior nor do firm decisions or strongly avowed desires to behave in certain ways inevitably culminate in behavioral change (Green, 1970). Miller (1961) stated that attitudes, values and beliefs are purposive. They serve needs that individuals may not consciously recognize in themselves, needs which may form the foundation

for the attitudes, values, beliefs, fears and behaviors they have acquired (Green, 1970).

The fear acquired by physicians and nurses is often accompanied by an attitude of inevitability and biologic determinism (Glucksberg & Singer, 1980). Many health professionals hold defeatist attitudes regarding cancer and cancer therapy even though progress has been made toward acquiring knowledge about the disease (Boyd, 1976). Unfortunately, there is a rational basis for these quiet and often unspoken fears (Glucksberg & Singer, 1980). Cancer can strike at any age and it is the second most common cause of death in the Western world (American Cancer Society, 1981). Nonetheless, medical progress has been made and is continuing to be made but giant strides are rare.

As the number of patients with various cancers increases, so does the number of nurses needed to care for them (Mitchell & Glucksman, 1977). These nurses need to be cognizant of the attitudes they hold toward the cancer patient and the disease entity cancer regardless of how many patients they care for, the location of their nursing practice or the amount of cancer knowledge they hold. Awareness of personal and professional attitudes could contribute to better patient care and a greater understanding of how to best meet patient need (Donovan & Pierce, 1976).

Limitations of the Study

The generalizability of the study findings may be limited by the following:

1. The nurses studied were registered nurses employed in the State of Oregon during 1982.
2. There were no standardized instruments currently existing for quantifying the attitudes of nurses toward cancer patients and the disease entity cancer.
3. The measurement instruments selected involved forced choice responses on a Likert scale format.
4. Educational achievement consisted of cancer courses taught by the Oregon Comprehensive Cancer Program.
5. Clinical exposure was defined by a designated number of cancer patients cared for by a nurse.

Definition of Terms

The following definitions are provided in order that terms used in the study may be understood within the context intended.

Analysis of Variance: "A method of identifying, breaking down, and testing for statistical significance variances that come from different sources of variation" (Kerlinger, 1973, p. 147).

Attitude: The manner of acting, feeling or thinking that shows one's disposition or opinion toward a topic or subject (Webster, 1979).

Attitude Generalizations: Attitudes are feelings; involve a continuum of acceptance (accept-reject, favorable-unfavorable, positive-negative); are held by individuals; may be held in common by different individuals; are held in varying degrees; influence actions; are changeable; and, are influenced by information (Miller, 1961).

Cancer: A large group of diseases characterized by uncontrolled growth and spread of abnormal cells in the human body. If the growth and metastasis is not controlled or managed it results in death.

Cancer Patient: Any person living with the diagnosis of cancer who is receiving health care services for the purpose of promoting, maintaining, or restoring health or minimizing the consequences of illness.

Clinical Exposure: Nursing care given to six or more cancer patients each month for previous year.

Community-Based Nurse: A registered nurse whose nursing practice occurs in the community setting.

Educational Achievement: Completion of two didactic cancer theory courses entitled, "Introduction to Biological and Physical Concepts Basic to Cancer Care" (48 hours) and "Nursing Care of the Cancer Patient" (56 hours) taught by the Oregon Comprehensive Cancer Program.

Hospital-Based Nurse: A registered nurse whose nursing practice occurs in the hospital setting.

Nurse: An individual licensed as a registered nurse in the State of Oregon and a graduate of one or more of the following programs: Hospital diploma program, associate degree program, baccalaureate nursing program, master's nursing program.

Nursing: The diagnosis and treatment of human responses to actual or potential health problems" (American Nurses Association, 1983, p. 4).

Oregon Comprehensive Cancer Program (OCCP): A statewide cooperative cancer control network of twenty major hospitals. As an integral component of the Oregon Comprehensive Cancer Program, the Oregon Nurses Cancer Education Program provides comprehensive educational programs designed to upgrade and expand knowledge and skills in the following areas: Cancer prevention, detection, diagnosis, treatment, rehabilitation, and long

term care. OCCP attempts to create a positive stance toward the management of patients with a diagnosis of cancer.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature related to the topic under study was conducted in three areas: Personality Characteristics of Nurses, Attitudes of Nurses Toward Nursing Practice and Attitudes of Nurses Toward Cancer Patients and Cancer as a Disease Entity.

Personality Characteristics of Nurses

Actual and perceived personality characteristics of nurses were studied as part of the social science vocational image research conducted in the 1940's and 1950's (Kelly, 1981). Subsequent studies related to personality characteristics have been attributed to nursing investigators attending graduate school (Kelly, 1981). As a consequence, these studies had a narrow focus, utilized a variety of measurement instruments and involved small samples. This made comparison of findings difficult (Lewis & Cooper, 1976).

The review of literature revealed two different frameworks employed for the identification of nursing personality characteristics. One related the findings of a consistent heterogeneous sample to the total nursing population. The other looked at a small group of nurses in a

specific nursing program or specialty area with findings not germane to the whole. The characteristics studied depended upon the researcher's purpose and the measurement instruments selected.

Costello (1967), in a well-known study, used the Edwards Personal Preference Schedule to compare the personality characteristics of heterogeneous groups of nursing students with female college students. The most noteworthy finding was that five of the seven studies indicated that nurses had a greater need for deference (need to conform to custom), than female college graduates and had less need for dominance (need to supervise and direct actions of others). Six of the seven studies indicated they had less for autonomy (need to be independent of others in making decisions), and a greater need for endurance (need to complete a job undertaken). Five of the seven studies indicated a greater need for order (need to have things organized, planned and carried out scrupulously). In addition, the findings indicated that nurses had more need for abasement (need to give in and avoid fights), and nurturance (need to help others), and a lesser need for exhibition (need to be the center of attraction), affiliation (need to form strong attachments), and change (need to do new things). One stance taken by Costello was that the nursing supervisors, as well as the

head nurses in charge of hospital units, encouraged these personality characteristics. Costello concluded that nurses acquired these characteristics as a way of maintaining employment viability. The investigator questioned whether the more assertive, dominant and independent thinkers had been rooted out of the nursing programs.

Kemp and Peitchinis (1968) assessed Costello's (1967) findings as being erroneously negative. They questioned the investigator's research methodology and, in turn, the assumptions, interpretations and suggestions espoused. Costello (1967) adamantly defended his findings.

Peitchinis (1972), in summarizing and updating subsequent scale scores, found that nurses who had been employed five years had significantly higher scores on the autonomy and order scales and lower scores (less need), on the change and abasement scales. Peitchinis (1972), suggested that as the nursing student progressed from sophomore to senior year, the student showed increased scores for autonomy and assertiveness and decreased scores for deference, abasement and dominance. Peitchinis indicated that nurses continued to have a number of personality characteristics that curtailed effective therapeutic patient relationships, but that they were attempting to overcome the limitations.

Several behavioral scientists, using the Thematic Apperception Test, examined the personality characteristics of various nurse groups (Bernstein, Turrell & Dana, 1965; Cleveland, 1965). Cleveland (1965) compared staff nurses, and nursing students with dietitians and dietetic interns. The nursing groups exhibited a lack of assertiveness and competitive striving. They were considered passive while the dietetic groups revealed a striving for achievement and success. The nurses displayed compassion and empathy for suffering and distress while the dietitians appeared to be status conscious, achievement oriented and concerned with influencing and manipulating others.

Bernstein et al. (1965) compared sophomore nursing students with college students enrolled in a psychology course and female patients attending the obstetrics clinic. Their findings suggested that the nursing students were more disturbed in their interpersonal relationships, especially with parents. They appeared to be more hostile and aggressive than either the college group or obstetric clinic patients. The nurses showed a strong achievement drive and relatively little occupational concern. Bernstein et al. suggested that the hostility identified, and the defenses against the hostility, could be interpreted as a healthy channeling of impulses into

the useful profession of nursing.

Richards (1972) and Bullough (1975) looked for differences between nursing students and students with other career choices in an effort to identify personality characteristics. Richards studied differences in the psychological characteristics of students graduating from three types of basic nursing programs: associate degree, diploma and baccalaureate. The data revealed no statistically significant differences among the three groups in the domains of leadership potential, emotional stability, intelligence, sociability or responsibility. All three nursing groups appeared to be more responsible and emotionally stable than the average female college student of the normative group, but much less sociable. In the area of professionalization, each nursing group, viewed the nursing situation in a similar manner and tended to have similar perceptions as to the attitudes of doctors, head nurses and patients. However, baccalaureate students had a significantly more professional ideal of nursing for themselves and they perceived their instructors' ideals as more professional than did the associate degree or diploma student.

Bullough (1975) compared baccalaureate and associate degree nursing students on the care/cure dichotomy. The research question addressed pertained to how care oriented

and how care oriented each of the groups were. The findings indicated that the baccalaureate students were more care oriented than cure oriented and the associate degree students were more cure oriented than care oriented.

Goldstein (1980), Meleis and Farrell (1974) studied differences in self esteem, self actualization, intellectual ability and leadership ability between nursing students from three different educational programs: Diploma, associate degree and baccalaureate. Neither of the above studies supported a statistically significant difference among the groups.

Since nursing was overwhelmingly a women's profession (Cleland, 1971), the factor of gender also needed to be included in the examination of personality characteristics (Kelly, 1981; Maas & Jacox, 1977; Watson, 1981). Stromberg (1976) and Watson (1981) found in studying social interactions, that gender differences were more apparent and more universally noted by others than any other individual characteristic. Even the stereotyped differences of skin color, socio-economic status, age and physical disability tended to decrease with deep social involvement whereas sex-gender differences remained the same or increased. The result was that women with personal, intellectual and professional qualifi-

cations similar to those of their male counterparts often received less pay and less representation in the power structure. A study by Stromberg (1976) supported the contention that women, as a collective group, often experienced difficulty in distinguishing their professional role from their gender role.

Pender (1971) investigated the success orientation of students choosing a nursing career by comparing previous studies of achievement and motivation between men and women. The findings suggested that women pay a high price for success since many people equate intellectual achievement with loss of femininity. Because of this finding, Pender attempted to assess the attitudes of baccalaureate students toward academically successful females. The findings indicated that fifty-three percent of the baccalaureate student nurses accepted academically successful females, but forty-seven percent appeared to either reject or vent surprise at female achievement. They viewed academic achievement as being incompatible with the role of wife and mother. Pender suggested that young women who chose nursing as a career had a more pronounced occupational orientation than did young people in the general college milieu (Pender, 1971). Additional studies supported the difficulty women encountered in confronting the dilemma of professional and gender roles

(Davis & Olesen, 1964; Iveson-Iveson, 1981; Tetreault, 1976).

Personality characteristics of nurses in selected areas of practice have been the foci of several other investigations. Graham (1967) compared graduate nursing students choosing the functional area of teaching, with those selecting administration. The graduate students choosing administration placed greater value on social position, work status, monetary gain, and the acquisition of utilitarian objects than did graduate students in teaching. Graduate students choosing teaching in contrast to those choosing administration placed greater value on attaining success through personal effort, introspective contemplation, intellectual growth and accomplishment, and striving again after an apparent failure. The students in teaching showed a greater willingness to subject themselves to the demands of others for a longer period of time in order to achieve educational goals. The teaching oriented group was more tender minded, kind, emotionally sensitive and idealistic than the students in administration.

Miller (1965) identified personality characteristics of graduate nursing students in the clinical nursing specialty areas of psychiatry, medical/surgical, maternal-child and public health. The psychiatric graduate nurs-

ing student group was described as being forceful, highly independent, highly preoccupied with personal conflicts and rebellious toward rules and restrictions. They held broad and varied interests typical of creative individuals. The medical/surgical graduate nursing student group was described as passive and less independent than other groups. They were more inclined to be judgmental of the social values and attitudes of others and were more impersonal and aloof toward people. They were also dependable, sincerely conscientious, overly conforming and conventional. There was some similarity between the public health and maternal-child graduate nursing student groups in characteristics which describe them as insightful, cheerful, warm, charming, and easily liked and accepted by others. However, the public health graduate nursing student group was more concerned with others' reactions toward them and they placed higher value on orderliness, efficiency and promptness than did the maternal-child student group. The maternal-child group was distinguished from public health group in possessing a slow relaxed tempo, a sympathetic gentle manner and an interest in maintaining a "feminine" role.

Additional studies reported in the literature which focused on the personality characteristics of nurses, included investigations of psychiatric, renal dialysis,

pulmonary, plastic surgery, geriatric and general surgery nurses (Sylvester, 1976), nurse practitioners (Stauffacher & Narran, 1968; White, 1975), coronary care specialists (Kellberg, 1972), and surgery nurses (Lewis & Cooper, 1976). It seemed clear that further study of motives, attitudes, and personality characteristics of individuals entering and practicing in the field of nursing could prove useful and productive (Morris & Grussi-Russo, 1979), especially with regard to patient care (Miller, 1965).

Attitudes of Nurses toward Nursing Practice

Nurses are committed to working with people in ways that promote healthy lifestyles (Libo, 1979; Smith, 1968) and they welcome the opportunity to give human beings dignity (Davies, 1979). Numerous investigations revealed that individuals choosing to enter the nursing profession did so because of their interest in caring for others (Annandale-Steiner, 1979; Morris & Grassi-Russo, 1979; Mowbray & Taylor, 1967; Salvage, 1979; Smith, 1976; Taylor & Richter, 1969; Winterbottom, 1980). Curtin (1980) described these individuals as "intelligent resource people trying to help others under difficult and stressful circumstances - and they succeed more often than they fail" (p. 7).

In 1962, the National League of Nursing (NLN) began a comprehensive fifteen year study of nursing career patterns involving associate degree, diploma and baccalaureate graduates. Data were collected at one, five, ten and fifteen year intervals (NLN, 1979). Overall, the NLN found, along with Simmons and Henderson (1964), that individuals entered the nursing profession because they wanted to help sick persons get well or stay well. Nurses often left the profession because of the discontinuity between the nurses self image of nursing and the actualities of work life. Kramer (1974) found that nurses frequently became discouraged because they could not give the patient comprehensive nursing care. Instead, the nurses felt coerced into the bureaucratic work patterns of large institutions which did not support their interpretation of holistic patient care.

Although there are in nursing, as there are in any profession, some who are primarily interested in a job or in earning money--the utilizer, migrant, or appliance nurse (one who works long enough to buy a new home appliance)--the majority of nurses still apparently have some of the same motivations with which they entered nursing (Kelly, 1981, p. 197).

Funkhouser (1976, 1977) attempted to assess the quality of patient care issue by gathering the opinions of a large number of nurses subscribing to a nursing publication. Ten thousand nurses from the United States

and Canada responded to the seventy-eight item questionnaire. Five salient points surfaced: 1) fifty-three percent of the respondents believed the overall quality of care provided the patient was good or excellent; 2) seventy-seven percent rated the physical care given by the nurses' co-workers as good or excellent; 3) the supportive services of rehabilitation, psychological support for patients and their families, discharge planning and patient education were rated as poor or fair; 4) eighty-one percent of the respondents rated the overall physical care provided by physicians as good or very good but seventy-seven percent rated the psychological support provided by physicians as poor or fair; and, 5) sixty percent of the respondents said they had encountered a situation in which the nurse or physician had accidentally caused a patient's death. Eighteen percent had witnessed a death caused by a nurse and forty-two percent had witnessed a physician-caused patient death.

Funkhouser (1976, 1977) believed that the best overall measure of how a nurse felt about the quality of health care provided patients was to ask whether or not the nurse would choose to be a patient in the institution employing her. Of the 10,000 nurses responding, one third chose not to be a patient in the facility that employed

them and one half of all the nurses said they would be unwilling patients in any kind of nursing home.

The total sample delineated four determinants of quality health care. They were time, money, hospital administration and personal caring and commitment. The majority of nurses felt that if they "made waves" about the determinants, they would be severely penalized (Funkhouser, 1977).

Godfrey (1978a, 1978b, 1978c) attempted to answer two questions in a study surveying 17,000 nurses subscribing to a nursing publication. The two questions were: 1) how do nurses feel about nursing, and, 2) how satisfied or dissatisfied were they with their jobs. The data indicated that nurses were dissatisfied with the aspects of unsafe practice, critical staffing, poor administrative leadership and communication breakdown. Even though these dissatisfactions existed, ninety-one percent of the nurses had positive feelings about the profession itself, and eight out of ten of these would choose the same profession if they had to decide again (Godfrey, 1978a). The most satisfying work settings identified by the sample were those in industries and schools with the hospital being the least satisfying place to work (Godfrey, 1978b).

In 1975, Godfrey conducted a study concerned with the fringe benefits offered to U.S. and Canadian nurses

and the influences these benefits had on job satisfaction. The data collected from the 1,500 employed nurses answering a nursing journal questionnaire showed no significant differences in attitudes between U.S. and Canadian nurses regarding what was important in choosing a job. However, the Canadian nurses were found to have greater fringe benefits than nurses employed in the United States.

A subsequent investigation by Godfrey (1976), involved the determination of collective bargaining attitudes of 1,500 nurses. This study also used a nursing journal survey questionnaire format. From the analysis of data Godfrey sketched a profile of the average nurse. The average nurse worked as a staff nurse in a non-profit urban community hospital, was married, in her mid-twenties, and earned \$8,000-12,000 per year. She was not a member of a collective bargaining unit, but did belong to her professional organization. The data indicated that the large majority of nurses were reluctant to align themselves with unions and many who were organizing or planning to organize were doing so only because nothing else had worked. The rationale for joining a collective bargaining unit was to force management to listen to their requests for gaining increased wages, fringe benefits and increased nurse autonomy relative to patient care. However, the nurses recognized that unionizing could, and often did,

improve the tangibles of salary, fringe benefits and staffing, but unionizing was less effective in confronting the intangibles of attitude and authority.

Kelly (1981) stressed the inherent difficulty in determining differences between findings resulting from surveys conducted through a publication and those resulting from more well controlled studies. It is always essential to consider how the sample was selected, who responded and how the questionnaire items were worded.

Additional research efforts addressed in the literature included the nurses' attitudes toward selected practice sites and specific patient populations. Several studies reviewed included: Home nursing (Chalmers & Raymond, 1980), industrial nursing (Lopez, 1979), community health nursing (Bloom, O'Reilly & Parlette, 1979), operating room nursing (Preston, Ivancevich & Mattson, 1981), and extended care facilities and nursing homes (Robinson, 1979).

Attitudes of nurses toward particular categories included the elderly (Feldbaum & Feldbaum, 1981; Hooper, 1981; Gillis, 1973; Gunter, 1971), the alcoholic (Cornish & Miller, 1976; Schmid & Schmid, 1973), the lower socio-economic (Brinton, 1972; Larson, 1977), the hypochondriac (Nelson, 1973), the mentally ill (Nelson, 1973), and the cancer patient (Davies, Quinlan, McKegney

& Kimball, 1973; Gladstone, McKegney & Patrick, 1980).

Attitudes of Nurses Toward Cancer Patients
and Cancer as a Disease Entity

"Our society has a proclivity to deny, avoid or ignore cancer" (Yeaworth, Kapp & Winget, 1974, p. 20), and patients being aware of societal attitudes and stigma do not readily talk about what they are experiencing (Francis, 1969; Tiedt, 1975). Prior to and during the 1950's the majority of physicians did not inform a cancer patient about his diagnosis and prognosis (Fitts & Raudin, 1953; Oken, 1961) even though patients requested this information (Gilbertson & Wagenstein, 1962; Kelly & Friesen, 1950; Samp & Curreri, 1957).

During the 1960's and 1970's there was a complete reversal of this policy. In 1961 ninety-three percent of the physicians in the United States did not tell the patient about his diagnosis or prognosis but in 1979 only three percent of the physicians were withholding this information (Manos & Christakis, 1980-81). Frequently the information shared with the patient included a reference to the patient's impending death (Rea, Greenspoon, Shirley & Spilka, 1975).

Pienschke (1973), in looking at four approaches to informing a cancer patient of his diagnosis and

prognosis, found an open approach to be the most effective. An open approach included direct communication about the diagnosis, details of the diagnosis and the use of the terms "cancer" or "malignancy". An open approach to prognosis consisted of revealing the prognosis before the patient asked, presenting an accurate prognosis with some degree of certainty immediately and the qualification of cancer as "late" or "terminal". When the open-diagnostic-open-prognostic approach was used the patients had greater confidence in the health professional. The patients also evidenced greater satisfaction with the quality and quantity of the information received. This approach resulted in a marked increase in the effectiveness of the nursing intervention strategies employed. Patients did, however, express a need for additional information. Francis (1969) stated that no matter how much information a patient was given if the patient felt it was inadequate he would expend his energy to cope with the unknown.

Additional research findings (Lum, Chase, Cole, Johnson, Johnson & Lind, 1978) supported the belief that the more a patient knew and understood about his condition, the more likely he was to cooperate with the treatment regimens (Dodge, 1972; Dunphy, 1976; Kram & Caldwell, 1969; Kubler-Ross, 1969) and the less stress or anxiety he was likely to experience (Francis, 1969; Klagsbrun, 1970;

Mangan, 1967). However, cancer patients fully informed of their diagnoses were found by Lucenti & Fleck (1972) to be more anxious than patients with other types of diagnoses. Volicer (1974) concurred with Lucenti & Fleck's findings but augmented them by specifying that any informational deficit could become a stressful event.

Nurses and patients didn't always agree as to what information should be shared between them, and this influenced the attitudes of both nurse and patient (Dodge, 1972; Pender, 1974). Dodge found that cancer patients were highly concerned with knowing how serious their situation was, their chances of recovery and the chances of disease recurrence. Nurses were more concerned with the patients receiving information relative to the effects of treatment and the benefits of nursing care surrounding these treatments. The patients were more concerned than the nurses were with knowing what caused their condition, what were the disease symptoms and what were the results of the diagnostic and surgical procedures. The nurses seemed more oriented toward explanations of ancillary services, i.e. special diets, hospital routines and visiting hours. Both nurses and patients, however, considered it highly important that patients be informed about their current illness, how long it might last, the expected symptoms, and what type of care would be best.

Dodge indicated that if the nurse did not view her patient's concerns as important and relevant, the nurse would not be aware of what was troubling him. Then too, she would be less effective in reducing his anxiety.

Welch (1981) and Davitz & Davitz (1975) examined the value orientations of nurses caring for cancer patients. Welch found that nurses were particularly vulnerable to feelings of hopelessness, despair, personal failure and clinical incompetence. Davitz & Davitz found nurses questioning their role as nurses. The basis for these feelings might have resided in the value and attitude orientation the nurses had acquired early in their professional career (Felton, Reed & Perla, 1981). Golub & Reznikoff (1971), in a study comparing attitudes of nursing students and graduate nurses toward death, found that "nurses appeared to acquire common attitudes early and these remained comparatively stable throughout their nursing career" (p. 508). Felton, Reed & Perla (1981) indicated that the majority of nurses had learned a set of basic values which began with their initiation into the nursing program. These basic values included a belief in the healthy and intact body, the "protection" of patients and their relatives from frightening diagnoses and the equating of a cancer diagnosis with a death sentence. The attitudes engendered by such value orientations

stifle the coping potentialities of both the nurse and the patient with cancer (Marino, 1976; Millerd, 1977).

In coping with the emotional discomfort associated with caring for a patient for whom cure was no longer a realistic possibility, the nurse attempted to avoid the patient in a variety of ways (Glaser & Strauss, 1964, 1965, 1968; Quint, 1966; Sudnow, 1967). Benoliel (1970) and Kramer (1974) reported that nurses stopped communicating with patients when they felt ill-equipped to cope with the conversational difficulties surrounding death. Klagsbrun (1970) concluded that nurses frequently physically and emotionally withdrew. Ross (1978) indicated that the emotional withdrawal was discernible by listening to verbal interactions between nurse and patient. Nurses were found to evade discussion of sensitive issues surrounding death even when patients initiated such discussions. The nurses preferred, instead, to offer the patient reassurance, deny his concern or change the subject (Ross, 1978; Kastenbaum & Aisenberg, 1972).

Mood and Lakin (1979) investigated the attitudinal concept of avoidance by looking at the linguistic indicator, "it". Their findings indicated that nurses often used this pronoun to avoid the unpleasant words of cancer, terminal illness, death and dying.

Davies, Quinlan, KcKegney and Kimball (1973) compared the attitudes of nurses with the behavior of patients

diagnosed as having metastatic cancer. Davies et al identified two nurse attitude factors they called "dislike-like" and "avoidance-approach." The patients more disliked by nurses were those who were sicker, had more pain, spent more time in bed and who reported themselves as hostile, irritable and worried. Nurses avoided patients who showed greater emotional disturbance, particularly those who felt hopeless and depressed, and those who were demanding and guarded. The nursing attitudes Davies et al. identified were examined by Stockwell in an article authored by Nelson (1973). Stockwell portended that the patients most disliked and ignored by nurses were the unpleasant, the long term, the mentally ill, the hypochondriacal and the dying.

Gladstone, McKegney & Patrick (1980) in a subsequent study to Davies et al. (1973) found support for the two rather independent attitude factors of "dislike-like" and "avoidance-approach." However, these factors were renamed "draining-satisfying" and "dislike-like." Gladstone et al. found that nurses tended to describe most patients as likeable, and not childish, emotionally draining or self-harmful. However, nurses felt emotionally drained when confronted with depressed or tearful patients or those in pain. Frequently the nurses blamed the patient for the negative feelings they were experienc-

ing and as a consequence attempted to avoid the patient. The researchers concluded that a small number of specific patient behaviors, as perceived by the nursing staff, were highly associated with the feelings and attitude responses of those same staff members.

Nurses, according to Morrow, Craytor, Brown & Fass (1976) perceived cancer patients as being slightly different from non-cancer patients in their increased potential for irritability, and for "exhibiting periods of overt hostility and aggressiveness towards others" (p. 1086). Nurses observed by Keck and Walther (1977) were said to show "obvious discomfort...with regard to questions about emotional needs of patients who were dying" (p. 469).

In an effort to determine the effects of clinical exposure on the attitudes of nurses, several studies were reviewed (McKegney, Visco, Yates & Hughes, 1979; Golub & Reznikoff, 1971; Stoller, 1980; Yeaworth, Kapp & Winget, 1974). Findings from a seventeen month study conducted by McKegney et al. (1979) indicated that continual clinical exposure to advanced cancer patients did not significantly alter the health team members' attitudes toward life, cancer or cancer care. The team members with minimal clinical and research exposure to cancer prior to instituting the study were found to hold

similar attitudes and values at the termination of the study.

Stoller (1980) examined the impact of work experience on the anticipated responses of registered nurses (RN's) and licensed practical nurses (LPN's) caring for dying patients. The findings indicated that both groups experienced uneasiness in the work situation. The uneasiness perceived by the LPNs' was associated with the unstructured interactions with dying patients. The uneasiness perceived by the RNs was associated with the length of time they had been practicing nursing. However, both groups developed coping techniques for dealing with difficult work situations based on their clinical exposure. Stoller purported that the uneasiness experienced by the novice nurse, in this type of situation, usually subsided as she learned how to incorporate various defensive strategies into her nurse patient interactions. Stoller cautioned that experience was not significant in predicting how RN's or LPN's would respond in difficult work situations.

Haley (1976) studied how nurses with a diagnosis of cancer viewed patients with cancer. The findings suggested that the nurses' perceptions of cancer patients were influenced by the thoughts and meanings she personally held toward her own disease process as well as by her own

conditioned beliefs, attitudes and professional experience.

Clinical exposure to cancer and the cancer patient, on the part of the nurse, was the focus of a study conducted by Parker (1979). Parker attempted to measure the nurses' responses to the cancer environment with a depression continuum instrument. The findings revealed that nurses experienced a sense of failure, loss and attendant grief. Effective resolution of their depressed feelings, however, prevented clinical depression.

Other researchers (Friel & Tehan, 1980; Vachon, Lyall & Freeman, 1978) were in concert with Parkers' stance relative to the need for providing the nurse with a mechanism to resolve her feelings of loss and grief. Vachon et al. believed that if the nurse did not receive the necessary emotional support she was at risk of "burn-out." Friel and Tehan (1980) postulated that "burnout" occurred when a nurse was not able to cope in an adaptive manner with the amount of stress felt at a particular time. For nurses working with cancer patients, the risk of "burnout" occurred somewhere between eighteen and twenty-four months.

Yano (1977) added an educational component to the group therapy sessions developed as a supportive measure for nurses working with cancer patients. Yano reported that by enlarging the nurses' supportive mechanisms to

include an educational component the quality of patient care improved. Mandel (1981) and Yeaworth, Kapp and Winget (1974) suggested that with a strong support group of one's own colleagues, a nurse could find joy, satisfaction and meaning in working with cancer patients.

In a study related to the attitudes of nurses and nursing students toward cancer and cancer nursing, Felton, Reed and Perla (1981) attempted to measure the effects of an educational component on the attitudes of these two groups. Felton et al. (1981), reported that attitudes did change with educational exposure but that

...it may be unrealistic to expect attitude changes from short exposure to educational experiences. If education plays a role in shaping attitudes, then student experiences must purposely give explicit evidence of supporting that belief. Thus, the educator can begin to foster development of authenticity in the learner (p. 74).

The majority of nurses need and want additional education related to the psycho-social, cultural, physical and interpersonal dimensions of cancer patient care (Benoliel, 1976; Mandel, 1981). They need to be given the room to explore their own feelings and attitudes about life, illness, death, dying and bereavement (Welch, 1979). "Then, with increased education, sensitivity, openness and skills the nurse will be better able to provide physical and psychological care to the [cancer] patients in her charge" (Mandel, 1981, p. 1197).

CHAPTER III

DESIGN OF THE STUDY

This study was an empirical investigation of the attitudes held by nurses toward cancer and the cancer patient. The purpose of the study was to determine if location of practice, clinical exposure, and educational achievement lead to a significant difference in the nurses' attitudes. Included in this section are:

1. A description of the sample population
2. A description of the study design
3. A description of the instruments
4. A listing of the hypotheses tested
5. A description of the method of analysis
6. A mathematical model

The Population

The review of literature revealed a dearth of research findings appurtenant to the demographic characteristics of nurses caring for cancer patients. Therefore, it was considered appropriate and necessary to examine a wide range of demographic and attitudinal variables. Each tabular representation notes the number of respondents as some participants failed to respond to certain items.

Demographic Characteristics

The sample consisted of 200 registered nurses actively involved in the practice of nursing in rural and urban areas of Oregon. One hundred ninety eight of the nurses were female, one was male and one was not designated.

The respondents, as shown in Table 1, ranged in age from twenty-three years to sixty-four years with a mean age of 37.1.

TABLE 1
AGE RANGE OF POPULATION

Age in Years	Absolute Sample Frequency	Adjusted Percentage
23-27	35	19.4
28-32	33	18.3
33-37	29	16.1
38-42	31	17.2
43-47	23	12.8
48-52	14	7.8
53-57	11	6.1
58-64	<u>4</u>	<u>2.2</u>
TOTAL	180	100.0

The majority of the participants were married (65.4%) as shown in Table 2.

TABLE 2
MARITAL STATUS OF POPULATION

Marital Status	Absolute Sample Frequency	Adjusted Percentage
Single and never married	37	19.7
Married	123	65.4
Divorced	8	4.3
Widowed	2	1.1
Living with	3	1.6
Separated	<u>15</u>	<u>8.0</u>
TOTAL	188	100.0

Each nurse was asked to describe the kind of nursing position she held. Table 3 shows the majority (52.5%) of the nurses held staff nursing positions while twenty-two and five tenths percent were in supervisory-like positions.

TABLE 3
CURRENT NURSING POSITION

Nursing Position	Absolute Sample Frequency	Adjusted Percentage
Staff Nurse	65	32.5
Community Health Staff	40	20.0
Head Nurse/Assistant Head	27	13.5
Supervisor	13	6.5
Nursing Education	8	4.0
Nursing Administration, (assistant, associate, director)	5	2.5
Community oncology nurse	3	1.5
Physician's office	7	3.5
Other: Occupational nurse, Research Assistant, associate Practitioner, clinical specialist	32	16.0
TOTAL	200	100.0

Ninety percent of these nurses were working full time and eight percent part time, as shown in Table 4. Each nurse in the sample had a current Oregon nurse's license.

TABLE 4
CURRENT WORKING STATUS

Working Status	Absolute Sample Frequency	Adjusted Percentage
Full time	180	90.0
Part time	16	8.0
Volunteer	2	1.0
Unemployed	<u>2</u>	<u>1.0</u>
TOTAL	200	100.0

The length of time each nurse occupied her present position ranged from less than three months to over five years. Thirty-two percent had been in their positions one to three years and a lesser percentage (25.9) three to five years (See Table 5).

TABLE 5
TIME EMPLOYED IN
PRESENT POSITION

Time	Absolute Sample Frequency	Adjusted Percentage
Less than three months	4	2.0
Three to eleven months	31	15.7
One to two years	63	32.0
Three to five years	51	25.9

TABLE 5
(continued)

TIME EMPLOYED IN
PRESENT POSITION

Time	Absolute Sample Frequency	Adjusted Percentage
Greater than five years	48	24.4
TOTAL	197	100.0

Nurses worked various shifts during the twenty-four hour period. The majority of them (77.7%) worked the day shift and eleven percent the evening shift (See Table 6).

TABLE 6
TIME PERIOD WORKED

Shift for Nurses	Absolute Sample Frequency	Adjusted Percentage
Days	153	77.7
Nights	15	7.6
Evenings	22	11.0
Rotating all three	1	0.5
Days and evenings	2	1.0
Days and nights	4	2.0
TOTAL	197	100.0

The length of time nurses were employed full time (20 or more hours per week) varied. Seventy-three percent had been employed for more than five years, as shown in Table 7, while other participants (2.5%) had not yet worked a full year.

TABLE 7
YEARS OF FULL-TIME EMPLOYMENT

Years	Absolute Sample Frequency	Adjusted Percentage
Less than one year	5	2.5
One to two years	15	7.5
Three to five years	30	15.0
More than five years	<u>146</u>	<u>73.0</u>
TOTAL	196	100.0

The basic nursing education for the registered nurses, as shown in Table 8, occurred in associate degree programs, hospital diploma programs, baccalaureate and master's programs. One half of the sample (52.6%) had baccalaureate degrees.

TABLE 8
BASIC NURSING EDUCATION

Program	Absolute Sample Frequency	Adjusted Percentage
Associate degree	28	14.3
Diploma	59	30.1
Bachelor's in nursing	103	52.6
Master's in nursing	<u>6</u>	<u>3.1</u>
TOTAL	196	100.0

After completing a basic nursing educational program thirty-three participants continued their academic pursuits and obtained an additional degree. The majority of the sample, however did not (See Table 9).

TABLE 9
ACADEMIC DEGREES SUBSEQUENT TO
BASIC NURSING EDUCATION

Degree	Absolute Sample Frequency	Adjusted Percentage
No further degrees	134	68.7
BSN, BN	21	10.8
Bachelors in non-nursing field	7	3.6
Master's degree	<u>33</u>	<u>16.9</u>
TOTAL	195	100.0

The nurses' basic educational program included varying amounts of educational content relative to cancer patients and the disease entity cancer. Table 10 shows eleven point two percent of the respondents without any cancer content in their programs while forty-seven point three percent reported having two to four lectures.

TABLE 10
CANCER EDUCATION PROVIDED
IN BASIC NURSING EDUCATIONAL PROGRAM

Cancer Content	Absolute Sample Frequency	Adjusted Percentage
None	19	11.2
One lecture	17	10.1
Two to four lectures	80	47.3
Five to ten lectures	51	30.2
Other: Senior practicum, Educational work-shop	2	1.2
TOTAL	169	100.0

Several of the agencies employing the nurse had stipulations pertaining to continuing education activities. Sixteen percent of the nurses were required to take a designated number of classes but only five percent received a salary change when the educational requirement had been fulfilled (See Table 11).

TABLE 11
CONTINUING EDUCATION REQUIREMENT
AND SALARY CHANGE

Continuing Education	Absolute Sample Frequency	Percentage	Salary Change	Absolute Sample Frequency	Adjusted Percentage
Yes	33	16.8	Yes	10	5.1
No	164	83.2	No	186	94.9
TOTAL	197	100.0		197	100.0

Table 12 shows that forty-two point two percent of the respondents were financially reimbursed for taking the classes while others were not (13.1%).

TABLE 12
FINANCIAL REIMBURSEMENT
FOR CONTINUING EDUCATION

Nurses Reimbursed	Absolute Sample Frequency	Adjusted Percentage
Yes	84	42.2
No	26	13.1
Sometimes	<u>89</u>	<u>44.7</u>
TOTAL	199	100.0

Continuing education programs were not the only mechanism by which the respondents kept current in their nursing practice. Fifty-three percent read more than twenty journal articles a year, seventy-five percent subscribed to nursing journals and sixty-nine percent were members of professional nursing organizations (See Table 13).

TABLE 13

NUMBER OF NURSING ARTICLES READ,
 JOURNAL SUBSCRIPTIONS AND
 PROFESSIONAL NURSING ORGANIZATION MEMBERSHIPS

Number of Nursing Articles Read in Last Year	Journal Subscriptions			Professional Nursing Organization Memberships				
	Absolute Sample Frequency	Adjusted Percentage		Absolute Sample Frequency	Adjusted Percentage		Absolute Sample Frequency	Adjusted Percentage
Zero to five	25	12.5	None	49	25.0	None	60	30.9
Six to ten	34	17.0	One	66	33.7	One	88	45.4
Eleven to twenty	35	17.5	Two	42	21.4	Two	35	18.0
Greater than twenty	106	53.0	Three	23	11.7	Three	7	3.6
			Four	10	5.1	Four	2	1.0
			Five	5	2.6	Five	2	1.0
			Ten	1	0.5			
TOTAL	200	100.0		196	100.0		194	100.0

Demographic characteristics pertaining to the sample's clinical exposure to cancer patients and their educational achievement related to the disease entity cancer was of major interest. Fifty percent of the respondents cared for six or more cancer patients each month during the previous year, as shown in Table 14, and fifty percent did not.

TABLE 14
NUMBER OF CANCER PATIENTS
CARED FOR BY NURSES

Number of Cancer Patients Cared For	Absolute Sample Frequency	Adjusted Percentage
None	51	25.5
One to five	49	24.5
Six to ten	34	17.0
Eleven to twenty	22	11.0
Greater than twenty	<u>44</u>	<u>22.0</u>
TOTAL	200	100.0

Fifty percent of the sample completed an educational component relative to the dimensions of cancer nursing and fifty percent did not (See Table 15).

TABLE 15
 NUMBER OF NURSES WITH AND
 WITHOUT EDUCATIONAL ACHIEVEMENT

Educational Achievement	Absolute Sample Frequency	Adjusted Percentage
Class	100	50.0
No class	<u>100</u>	<u>50.0</u>
TOTAL	200	100.0

Although the sample varied in the number of cancer patients the nurses cared for professionally, Table 16 shows that seventy-two percent of the nurses had personal

TABLE 16
 CLOSE FAMILY MEMBERS
 WITH CANCER DIAGNOSIS

Total number of persons	Absolute Sample Frequency	Adjusted Percentage
None	56	28.0
One	84	42.0
Two	36	18.0
Three	15	7.5
Four	5	2.5
Five	2	1.0
Six	1	0.5

TABLE 16
(continued)

CLOSE FAMILY MEMBERS
WITH CANCER DIAGNOSIS

Total number of persons	Absolute Sample Frequency	Adjusted Percentage
Eight	1	0.5
TOTAL	200	100.0

involvement with individuals diagnosed as having cancer. These individuals were close family members such as mother, father, brother, sister, aunt, uncle, grandparent, self, spouse or child. Twenty-eight percent of the respondents had no close family members with cancer.

Descriptive Attitudinal Variables

The attitudinal variables considered as descriptive of the sample encompassed subjective aspects of the nurse-patient interactions. In responding to the open-ended question related to the most difficult aspects of working with cancer patients, the nurses identified several in Table 17: Thirty-five point seven percent identified dealing with their own feelings as the most difficult aspect, while others (13.2%) thought helping families cope was the most difficult aspect.

TABLE 17
 MOST DIFFICULT ASPECTS OF
 WORKING WITH CANCER PATIENTS

Most Difficult Aspect	Absolute Sample Frequency	Adjusted Percentage
Lack of time	7	3.8
Conflicts with staff	11	6.0
Help families cope	24	13.2
Symptom control/pain/ chemo sequelae	22	12.1
Discuss death with patient	11	6.0
Deal with own feelings	65	35.7
Lack of control over timing of medical and nursing intervention	3	1.6
Other: Angry feelings of patients, trying to get patients to talk, helping patient accept disease, patient fear, severe surgi- cal disfigurement, patient depression, smell of patient	39	21.4
TOTAL	182	100.0

When nurses were questioned as to what they felt the cancer patient needed the most, sixty-nine point three percent said emotional support. Eleven point six percent said patients needed education about their disease (See

Table 18).

TABLE 18
NURSE PERCEPTIONS OF CANCER PATIENT NEEDS

Patient Needs	Absolute Sample Frequency	Adjusted Percentage
Education about disease	22	11.6
Emotional Support	131	69.3
Control over own care (choices)	7	3.7
Sufficient time to interact with people who care	2	1.1
Good physical care	8	4.2
Pain control	7	3.7
Other: Optimism where indicated, spiritual relationship with God, comfort measures, continuity of physical and emotional care, remain at home	12	6.4
TOTAL	189	100.0

Each nurse was asked what she liked most about caring for cancer patients. Table 19 shows that twenty point eight percent liked giving emotional support and seventeen point three percent liked developing close relationships with the patient and his family.

TABLE 19
 WHAT NURSES LIKE MOST ABOUT
 CARING FOR CANCER PATIENT

Nurse Likes	Absolute Sample Frequency	Adjusted Percentage
Teaching	12	7.1
Lend emotional support	35	20.8
Being needed and appreciated	16	9.5
Developing close relationships with patient and family	29	17.3
Seeing patients grow	11	6.5
Being a patient and family advocate	3	1.8
Ability to make patient comfortable	22	13.1
Other: Challenge of working with those fighting for life, patient courage inspiring, learning about the disease, "I don't like working with them," "Allows me to be real."	40	23.8
TOTAL	168	100.0

The close relationships or friendships established between the nurse and the patient frequently continued

after the patient was discharged from the hospital. Thirty-six point three percent of the nurses, as noted in Table 20, continued to see several patients but a larger number (45.1%) never tried to maintain contact.

TABLE 20
CONTINUED FRIENDSHIPS BETWEEN
NURSE AND PATIENT

Continued Friendships	Absolute Sample Frequency	Adjusted Percentage
Yes, there are several patients/families I still see	66	36.3
I'd really like to but I don't have the time	32	17.6
No, I think they like to forget about everything associated with their illness	2	1.1
No, I've never tried to maintain contact	82	45.1
TOTAL	182	100.0

The Study Design

The sample consisted of a random selection of 200 registered nurses. One hundred were operationally defined as community-based nurses as their practice took place outside the hospital (physician's office, clinic, school, industry, home health agency, health department). One hundred were operationally defined as hospital-based nurses since their practice was conducted inside the hospital (units of intensive care, pediatric, obstetrical, medical, surgical, oncology, psychiatric and department of administration).

The random sample of 200 was divided into eight groups of twenty-five each. The resulting groups were designated by the letters A through H. A detailed description of the group designations is found in Appendix F. Each participant was given either a verbal or written orientation statement (Appendix B) and basic instructions on how to complete the measurement instruments (Appendix C).

The membership in the small groups of twenty-five was based on how the participant met the criteria established for the three independent variables. The three independent variables were: 1) location of nursing practice; 2) clinical exposure to cancer patients; and, 3) educational achievement. The two dependent variables were the mean scores obtained from the Cancer Nursing

Outreach Program Affective tool and the Cancer Attitude Survey. These instruments were employed for the attitude assessment. A description of the instruments is presented in the next section.

A summary of the study design appears in Table 21.

TABLE 21
STUDY DESIGN

	LOCATION OF NURSING PRACTICE			
	HOSPITAL		COMMUNITY	
	NO CLINICAL EXPOSURE	CLINICAL EXPOSURE	NO CLINICAL EXPOSURE	CLINICAL EXPOSURE
NO EDUCATIONAL ACHIEVEMENT	A	B	E	F
EDUCATIONAL ACHIEVEMENT	C	D	G	H

The Instruments

The Cancer Nursing Outreach Program Affective Evaluation tool (CNOP) and the Cancer Attitude Survey (CAS) were selected to empirically quantify the attitudes of 200 randomly selected participants. The CNOP measured attitudes in the four hypothetical dimensions of: Pediatric thanatology, self awareness, sexuality (personal

and patient) and assertiveness. The total score represented a "positive attitude" in the four dimensions. The CAS measured the concept areas of hopelessness and hopefulness. The total score represented a "positive attitude" in those two areas. A detailed description of the two instruments and their use is included in Appendix D. The instruments were obtained from the Fred Hutchinson Cancer Research Center at the University of Washington and the study findings will be shared with the researchers there (See Appendix E for procurement policy).

Because the Cancer Nursing Outreach Program Affective tool (CNOP) and the Cancer Attitude Survey (CAS) were not standardized instruments, a reliability program for determination of internal consistency was performed on each instrument.

The reliability coefficient reflects the extent to which a test is free of error variance. Error variance may be defined as the sum effect of the chance differences between persons that arise from factors associated with a particular measurement, [i.e. wording of the test, person's mood, ordering of test items and content used]. The more closely the reliability coefficient is to the value of 1.00 the more the test is free of error variance and instead is a measure of the true differences among persons in the dimension assessed by the test (Helmstadter, 1964, p. 144).

Previous research, as reported by the Fred Hutchinson Cancer Research Center, revealed that in a sample of 295 nurses the internal consistency coefficient for the CNOP

was .65 and the CAS .64. The findings in this present study, as described in Table 22, revealed the internal consistency coefficients to be .71 (N=174) for the CNOP and .59 (N=191) for the CAS. There was greater variability in the alpha coefficient for the CAS measurement instrument. The internal consistency was lower for the subsample of nurses located in the hospital than for nurses located in the community.

TABLE 22

INTERNAL CONSISTENCY COEFFICIENTS FOR
TWO MEASUREMENT INSTRUMENTS

Scale Name	Number of Items	Total Sample			Hospital Sample			Community Sample		
		Alpha (unstandardized)	Item-total Correlation Range	Mean Inter-Item Correlation	Alpha (unstandardized)	Item-total Correlation Range	Mean Inter-Item Correlation	Alpha (unstandardized)	Item-total Correlation Range	Mean Inter-Item Correlation
CNOF	40	.71	-.32 to .51	.06	.68	-.42 to .55	.05	.71	-.49 to .58	.06
		N=174			N=88			N=86		
CAS	20	.59	-.15 to .33	.07	.52	-.30 to .43	.06	.60	-.23 to .55	.08
		N=191			N=94			N=97		

The Hypotheses Tested

- HO₁: There is no significant difference between attitude scores for location of nursing practice.
- HO₂: There is no significant difference between attitude scores for clinical exposure.
- HO₃: There is no significant difference between attitude scores for educational achievement.
- HO₄: There is no significant interaction effect between location of nursing practice and clinical exposure.
- HO₅: There is no significant interaction effect between location of nursing practice and educational achievement.
- HO₆: There is no significant interaction effect between clinical exposure and educational achievement.
- HO₇: There is no significant interaction effect between location of nursing practice and clinical exposure and educational achievement.

The Method of Analysis

The present study was designed to examine attitudes of nurses toward cancer and the cancer patient and to ascertain what differences, if any, existed between the participants.

A three-way classification of Analysis of Variance (Fixed Design) was used to test the null hypotheses that no significant differences existed among the eight nursing groups selected.

The test statistic for the null hypotheses was the F statistic with .05 level of significance being used for the assessment of differences. Kerlinger (1973) described the analysis of variance as "...a method of identifying, breaking down, and testing for statistical significance variances that come from different sources of variation" (p. 47). Downie and Starry (1977) indicated that this statistical tool had a wide variety of applications for both experimental and non-experimental studies.

The analysis of variance procedure was determined appropriate for this study because of the way the CNOP, and the CAS test data were expected to fit the F statistic criteria. Nie, Hull, Jenkins, Steinbrunner & Bent (1975) explained the use of the F statistic in analysis of variance as follows:

Analysis of Variance is a statistical technique that assesses the effects of one or more categorical independent variables (factors) measured at any level upon a continuous dependent variable that is usually assumed to be measured at an interval level. Conceptually, the cases are divided into categories based on their values for each of the independent variables, and the differences between the means of these categories on the dependent variable are tested for statistical significance. The relative effect upon the dependent variables of each of the independent variables, their combined

effects and interactions may be assessed (p. 9).

Kerlinger (1973) contributed support for the use of the F statistic in this type of study where groups of nurses, randomly selected from a pre-selected eligible population, are being compared for significant differences. Kerlinger (1973) states:

An F test...simply says that a relation exists. The relational fact is inferred from the significant differences between two, three or more means. A statistical test like F says in a relatively indirect way that there is or is not a relation between the independent variable (or variables) and the dependent variable (p. 227).

With a cell sample size of 25, as shown in Table 23, the power level for the F test will equal .80 where the effect size is set at .40. This power level assures that type II errors will not be committed more than twenty percent of the time as the hypotheses are tested (Cohen, 1969).

TABLE 23
THREE-WAY ANALYSIS OF VARIANCE (FIXED DESIGN)
CELL SIZE DESIGNATION

	LOCATION OF NURSING PRACTICE			
	HOSPITAL LOCATION		COMMUNITY LOCATION	
	NO CLINICAL EXPOSURE	CLINICAL EXPOSURE	NO CLINICAL EXPOSURE	CLINICAL EXPOSURE
NO EDUCATIONAL ACHIEVEMENT	A=25	B=25	E=25	F=25
EDUCATIONAL ACHIEVEMENT	C=25	D=25	G=25	H=25

The Mathematical Model

The three-way analysis of variance (fixed design) is a statistical model employed for testing the consequences of manipulating two or more independent variables in a single research design. Each independent variable has two or more levels. The F ratio is the statistic used to conduct the appropriate hypotheses tests in multiple factor designs (Kerlinger, 1973). Significance tests among different levels of each factor are known as main effects. Whatever effects are due solely to the combina-

tion of factors are known as interaction effects. The mathematical model for the three-way ANOVA arrangement (fixed design) is written as: $Y_{ijkl} = \mu + \alpha_i + \beta_j + \delta_k + \alpha\beta_{ij} + \alpha\delta_{ik} + \beta\delta_{jk} + \alpha\beta\delta_{ijk} + \epsilon_{ijkl}$

Where:

μ is an unknown constant;

α_i is a differential (fixed) effect associated with location of nursing practice;

β_j is a differential (fixed) effect associated with clinical exposure;

δ_k is a differential (fixed) effect associated with educational achievement;

$\alpha\beta_{ij}$, $\alpha\delta_{ik}$, $\beta\delta_{jk}$ and $\alpha\beta\delta_{ijk}$ are interaction effects, and

ϵ_{ijkl} is a random variable (normally and independently distributed), mean of zero and a variance of σ^2 .

When a researcher purposely and non-randomly selects certain levels of factor for study, his ANOVA design corresponds to a fixed-effect model.... Results of studies which correspond to the fixed-effect model are interpreted only with respect to the specific levels actually analyzed; generalizations to the entire universe of a factor's levels are not permissible (Downie & Starry, 1977, p. 159).

The decision matrix for this three-way ANOVA is a fixed design and appears in Table 24.

TABLE 24
THREE-WAY ANALYSIS OF VARIANCE (FIXED DESIGN)
DECISION MATRIX

Sources of Variation	Degrees of Freedom (df)	Sum of Squares	Mean Squares	Computed F	Tabular F =.05 df=1,200
Location of Nursing Practice	1	A	A/1	MS_A/MS_H	3.89
Clinical Exposure	1	B	B/1	MS_B/MS_H	3.89
Educational Achievement	1	C	C/1	MS_C/MS_H	3.89
Location of Nursing Practice and Clinical Exposure	1	D	D/1	MS_D/MS_H	3.89
Location of Practice and Education Achievement	1	E	E/1	MS_E/MS_H	3.89
Clinical Exposure and Educational Achievement	1	F	F/1	MS_F/MS_H	3.89
Location of Practice and Clinical Exposure and Educational Achievement	1	G	G/1	MS_G/MS_H	3.89

TABLE 24
(continued)

THREE-WAY ANALYSIS OF VARIANCE (FIXED DESIGN)
DECISION MATRIX

Source of Variation	Degrees of Freedom (df)	Sum of Squares	Mean Squares	Computed F	Tabular F =.05 df=1,200
Error	192	H	H/192		
TOTAL	199	I			

If the study findings reveal a significant interaction effect for the independent variables of location of nursing practice, clinical exposure and educational achievement a simple effects test will be performed. Winer (1971) suggests the Tukey q test as an appropriate statistic for this purpose.

The exact Tukey q computational formula used for determination of simple effects are dependent on which independent variables are found to significantly interact.

For example, if location of practice and educational achievement are found to significantly interact, a formula for comparing educational achievement within a specified location is :

$$q = \frac{\overline{A_1C_1} - \overline{A_1C_2}}{\sqrt{\frac{2MS_{\text{within cell}}}{2 \times n}}}$$

A = hospital location; C_1 = no educational achievement; C_2 = educational achievement; $MS_{\text{within cell}}$ = mean square variance within cell; and n = number in group. This particular example determines if educational achievement is a significant simple effect in the hospital location.

The Pearson Product Moment Correlations was used to determine the relationships between a selected number of demographic variables and the dependent variables.

Kerlinger (1973) states:

Social scientists commonly calculate indices of relation, usually called coefficients of correlation, between sets of ordered pairs in order to obtain more precise estimates of the direction and degree of relations.... Product moment and related coefficients of correlation...are based on the concomitant variation of the members of sets of ordered pairs (p. 69).

The demographic characteristics selected for study were: age of the nurse, length of time in nursing practice, time in current position, basic nursing education and number of cancer lectures provided in the basic nursing program. These characteristics were correlated with the mean scores obtained on the Cancer Nursing Outreach Program Affective tool and the Cancer Attitude Survey. The two instruments were correlated with each other to determine the magnitude of relationship.

CHAPTER IV

PRESENTATION OF THE FINDINGS

The main objective of this study was to examine the attitudes of nurses toward the cancer patient and the disease entity cancer and to determine if current location of nursing practice, prior clinical exposure to cancer patients and educational achievement relative to cancer courses influenced their attitudes.

The analysis of the data collected is presented in three sections. The first section presents a description of the computational results for hypotheses 1 through 7 (See Analysis of Variance Summaries in Appendix G). This includes a discussion component relative to the data analysis for the dependent variables of the Cancer Nursing Outreach Program Affective Evaluation tool (CNOP) and the Cancer Attitude Survey (CAS). The elements addressed by the dependent variables are the independent variables of location of nursing practice, clinical exposure and educational achievement. A summary is presented which combines the findings from both the CNOP and CAS instruments and describes how the results contribute to the hypothesis under study.

The second section presents the Pearson Product Moment Correlations that were obtained by correlating selected demographic characteristics with sample attitude mean scores. The demographic variables selected for study were: age of the nurse, basic nursing education, years in nursing practice, length of time in current position and amount of cancer content contained in basic nursing program. Discussion within this section focuses on the data gathered.

The third section presents an overview of the findings in summary and tabular form.

Computational Findings for Hypothesis One Through Seven

HO₁: There is no significant difference between the attitude scores for location of nursing practice.

The participants were divided into two groups. Group One (A,B,C,D) consisted of 100 hospital nurses. Group Two (E,F,G,H) consisted of 100 community nurses. The hypothetical dimensions being examined by the Cancer Nursing Outreach Program (CNOP) were: self awareness, sexuality (personal and patient), pediatric thanatology and assertiveness. The hypothetical concepts under study using the Cancer Attitude Survey (CAS) were hopefulness

and hopelessness. A three-way analysis of variance (fixed design) was used to analyze the data. The test statistic was the F. with the .05 level of significance being used to assess for differences. The computed value of F for the CNOP was 15.598 and the computed value of the F for the CAS was 10.769 (See Table 25). The critical value of F was 3.89.

Cancer Nursing Outreach Program (CNOP) Discussion

There was a statistically significant main effect due to location of nursing practice at the level of $p < .001$. However, since the data analysis revealed a statistically significant interaction effect between the location of nursing practice and educational achievement, this main effect will be interpreted later in light of the interaction effect. (See Hypothesis Five: Location of nursing Practice and Educational Achievement.

Cancer Attitude Survey (CAS) Discussion

There was a main effect due to location of nursing practice at the level of $p < .001$. Table 26 presents the sample mean scores averaged across no educational achievement and educational achievement and no clinical exposure and clinical exposure. The sample located in the community had a more positive mean score ($M=81.93^{***}$) than did the sample located in the hospital ($M=79.23$).

TABLE 25

SOURCE OF VARIATION: LOCATION OF NURSING PRACTICE

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Location of Nursing Practice	CNOP	1	2888.277	2888.277	15.598	.001
	CAS	1	365.069	265.069	10.769	.001

TABLE 26
 CAS: SAMPLE MEAN SCORES FOR LOCATION
 OF NURSING PRACTICE

Location of Nursing Practice	No Educational Achievement	Educational Achievement	Mean Score
Hospital	77.93	80.51	79.22
Community	81.56	82.29	81.93***

Location of Nursing Practice	No Clinical Exposure	Clinical Exposure	Mean Score
Hospital	78.82	79.63	79.23
Community	80.13	83.72	81.93***

***p < .001

The analysis of this finding indicated there was a statistically significant difference between the two samples. Therefore, the null hypothesis was rejected.

Summary

The main effect of location of nursing practice was statistically significant for the CNOP at the level of $p < .001$. However, discussion of this effect will be addressed later under the interaction effect of Hypothesis Five: Location of Nursing Practice and Educational Achievement. The data analysis of the CAS supported the

main effect of practice location at the level of $p < .001$. The sample located in the community obtained a more positive mean score than did the sample located in the hospital. Based on the analysis of this finding the null hypothesis was rejected.

HO₂: There is no significant difference between the attitude scores for clinical exposure.

The participants were divided into two groups. Group One (A,C,E,G) consisted of 100 nurses who had no clinical exposure to cancer and the cancer patient. Group Two (B,D,F,H) consisted of 100 nurses with clinical exposure. The hypothetical dimensions for the Cancer Nursing Outreach Program (CNOP) and the Cancer Attitude Survey (CAS) were examined. A three-way analysis of variance (fixed design) was used for data analysis. The test statistic was the F. with the .05 level of significance being used to assess for differences. The computed value of F for the CNOP was 1.294 and the computed value of F for the CAS was 7.146 (See Table 27). The critical value of F was 3.89.

TABLE 27

SOURCE OF VARIATION: CLINICAL EXPOSURE

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Clinical Exposure	CNOP	1	239.647	239.647	1.294	.257
	CAS	1	242.232	242.232	7.146	.008

Cancer Nursing Outreach Program (CNOP) Discussion

There was no significant main effect due to clinical exposure to the cancer patient. The sample caring for six or more cancer patients each month for one year compared with the sample not having this clinical exposure was not significantly different.

Table 28 presents the sample mean scores averaged across educational achievement levels and hospital and community locations. The sample with clinical exposure (M=169.10) and the sample without clinical exposure (M=166.90) achieved similar mean scores.

Based on the analysis of this finding the null hypotheses was retained.

TABLE 28

CNOP: SAMPLE MEAN SCORES FOR CLINICAL EXPOSURE

Clinical Exposure	No Educational Achievement	Educational Achievement	Mean Score
No Clinical Exposure	164.62	169.11	166.90
Clinical Exposure	167.35	170.76	169.10

TABLE 28
(continued)

CNOP: SAMPLE MEAN SCORES FOR CLINICAL EXPOSURE

Clinical Exposure	Hospital Location	Community Location	Mean Score
No Clinical Exposure	164.79	168.94	164.16
Clinical	163.53	174.58	169.05

Cancer Attitude Survey (CAS) Discussion

The data revealed a statistically significant main effect due to clinical exposure at the level of $p < .008$. Table 29 presents the sample mean scores averaged across no educational achievement and educational achievement and hospital and community locations. The sample having no clinical exposure ($M=79.48$) had a lower mean score than did the sample with clinical exposure ($M=81.68^{**}$).

The analysis of this finding indicated there was a statistically significant difference between the two samples. Therefore, the null hypothesis was rejected.

$^{**}p < .01$

TABLE 29

CAS: SAMPLE MEAN SCORES FOR CLINICAL EXPOSURE

Clinical Exposure	No Educational Achievement	Educational Achievement	Mean Score
No Clinical Exposure	78.27	80.67	79.47
Clinical	81.22	82.13	81.68**

Clinical Exposure	Hospital Location	Community Location	Mean Score
No Clinical Exposure	78.82	80.13	79.48
Clinical Exposure	79.63	83.72	81.68**

**p < .01

Summary

The analysis of the CNOP indicated no statistically significant difference in sample mean score based on clinical exposure levels. Consequently, the null hypothesis was retained. Based on the analysis of the CAS data, the sample with clinical exposure to six or more cancer patients each month for one year had a statistically significantly higher mean score than the sample without clinical exposure ($p < .008$). Therefore, the null hypothesis was rejected.

HO₃: There is no significant difference between the attitude scores for educational achievement.

The sample was divided into two groups. Group One (A,B,E,F) contained 100 nurses with no educational achievement relative to cancer theory courses. Group Two (C,D,G,H) consisted of 100 nurses with educational achievement. The hypothetical concepts for the Cancer Nursing Outreach Program Affective tool (CNOP) and the Cancer Attitude Survey (CAS) were examined. A three-way analysis of variance (fixed design) was used to analyze the findings. The test statistic was the F, with the .05 level of significance being used for assessment of differences. The computed value of F for the CNOP was 4.207 and the computed value of F for the CAS was 4.034 (See Table 30). The critical F value was 3.89.

TABLE 30

SOURCE OF VARIATION: EDUCATIONAL ACHIEVEMENT

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Educational Achievement	CNOP	1	799.104	779.104	4.207	.042
	CAS	1	136.734	136.734	4.034	.046

Cancer Nursing Outreach Program (CNOP) Discussion

There was a statistically significant main effect due to educational achievement at the level of $p < .042$. However, since the data analysis revealed a statistically significant interaction effect between location of nursing practice and educational achievement, this main effect will be interpreted later in light of the interaction effect (See Hypothesis Five: Location of Nursing Practice and Educational Achievement).

Cancer Attitude Survey (CAS) Discussion

There was a main effect due to educational achievement at the level of $p < .046$. Table 31 presents the sample mean scores averaged across hospital and community locations and no clinical exposure and clinical exposure. The participants with educational achievement obtained a significantly higher mean score ($M=81.40^*$) than the participants without educational achievement ($M=79.75$).

Since the difference between samples is statistically significant the null hypothesis was rejected.

* $p < .05$.

TABLE 31
 CAS: SAMPLE MEAN SCORES FOR
 EDUCATIONAL ACHIEVEMENT

Educational Achievement	Hospital Location	Community Location	Mean Scores
No Educational Achievement	77.93	81.56	79.75
Educational	80.51	82.29	81.40*

Educational Achievement	No Clinical Exposure	Clinical Exposure	Mean Scores
No Educational Achievement	78.27	81.22	79.75
Educational	80.67	82.13	81.40*

*p < .05

Summary

The main effect of educational achievement was found to be statistically significant at the level of $p < .042$ using the CNOP. However, discussion of this effect will be addressed later under the interaction effect of Hypothesis Five: Location of Nursing Practice and Educational Achievement. The data analysis of the CAS supported the main effect of educational achievement at the level of $p < .046$. The sample with educational achievement was found to have a more positive mean score than the sample without educational achievement.

Based on the analysis of this finding the null hypothesis was rejected.

H_{04} : There is no significant interaction effect between location of nursing practice and clinical exposure.

The sample was divided into four groups. Group One (A,C) consisted of 50 nurses located in the hospital with no clinical exposure. Group Two (B,D) consisted of 50 nurses located in the hospital with clinical exposure. Group Three (E,G) was made up of 50 nurses with no clinical exposure and located in the community. Group Four (F,H) included 50 nurses having clinical exposure and located in the community. The hypothetical dimensions on the Cancer Nursing Outreach Program (CNOP) and the Cancer Attitude Survey (CAS) were assessed. A three-way analysis of variance (fixed design) was used to analyze the results. The test statistic was the F, with the .05 level of significance being used for interpretation of differences. The computed value of F for the CNOP was 31212 and the computed value of the F for the CAS was 2.843 (See Table 32). The critical value of F was 3.89.

TABLE 32

SOURCE OF VARIATION: LOCATION OF NURSING PRACTICE
AND CLINICAL EXPOSURE

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Location of Nursing Practice & Clinical Exposure	CNOP	1	594.766	594.766	3.212	.750
	CAS	1	96.386	96.386	2.843	.093

Cancer Nursing Outreach Program(CNOP) Discussion

There was no statistically significant interaction effect between location of nursing practice and clinical exposure to cancer patients. Table 33 presents the sample mean scores and the mean score differences between samples.

The mean score differences ranged between -1.26 for the hospital-based sample with clinical exposure and the hospital-based sample without clinical exposure to 11.05 for the hospital-based clinically exposed sample and the community-based clinically exposed sample. None of the mean score differences between samples was statistically significant.

Since the analysis of this finding indicated no significant interaction effect between location of nursing practice and clinical exposure the hypothesis was retained.

TABLE 33

CNOP: SAMPLE MEAN SCORES AND MEAN SCORE
DIFFERENCES FOR LOCATION OF NURSING
PRACTICE AND CLINICAL EXPOSURE

Location of Nursing Practice	No Clinical Exposure	Clinical Exposure	Mean Score Difference
Hospital	164.79	163.53	-1.26
Community	168.94	174.58	5.64

Clinical Exposure	Hospital Location	Community Location	Mean Score Difference
No Clinical Exposure	164.79	168.94	4.15
Clinical Exposure	163.53	174.58	11.05

Cancer Attitude Survey (CAS) Discussion

There was no statistically significant interaction effect between location of nursing practice and clinical exposure to cancer patients. Table 34 presents the sample mean scores and the mean score differences between the samples.

The mean score differences ranged between 0.81 for the hospital-based sample with clinical exposure and the hospital-based sample without clinical exposure to 4.09 for the hospital-based clinically exposed sample and the community-based sample with clinical exposure. None of

the mean score differences between samples was statistically significant.

Since the analysis of this data indicated no significant interaction effect between location of nursing practice and clinical exposure the null hypothesis was retained.

TABLE 34

CAS: SAMPLE MEAN SCORES AND MEAN SCORE DIFFERENCES FOR LOCATION OF NURSING PRACTICE AND CLINICAL EXPOSURE

Location of Nursing Practice	No Clinical Exposure	Clinical Exposure	Mean Score Difference
Hospital	78.82	79.63	0.81
Community	80.13	83.72	3.51
Clinical Exposure	Hospital Location	Community Location	Mean Score Difference
No Clinical Exposure	78.82	80.13	1.31
Clinical Exposure	79.63	83.72	4.09

Summary

The analysis of findings from both instruments supports the null hypothesis of no interaction effect

between the location of nursing practice and clinical exposure to cancer patients. The hospital-based sample and the community-based sample achieved similar mean scores regardless of clinical exposure levels. The mean score differences were therefore not significant and the null hypothesis was retained.

HO₅: There is no significant interaction effect between location nursing practice and educational achievement.

The sample was divided into four groups. Group One (A,B) consisted of 50 nurses located in the hospital with no educational achievement. Group Two (C,D) consisted of 50 nurses located in the hospital with educational achievement. Group Three (E,F) was made up of 50 nurses located in the community without educational achievement. Group Four (G,H) included 50 nurses in the community with educational achievement. The concepts addressed by both the Cancer Outreach Program Affective tool (CNOP) and the Cancer Attitude Survey (CAS) were assessed. A three-way analysis of variance (fixed design) was used to analyze the data. The test statistic was the F, with the .05 level of significance being used for assessment of differences. The computed value of F for the CNOP was 4.273 and the computed value of the F for the CAS was 1.257 (See Table 35). The critical F value was 3.89.

TABLE 35

SOURCE OF VARIATION: LOCATION OF NURSING
PRACTICE AND EDUCATIONAL ACHIEVEMENT

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Location of Nursing Practice & Educational Achievement	CNOP	1	791.304	791.304	4.273	.040
	CAS	1	42.611	42.611	1.257	.264

Cancer Nursing Outreach Program (CNOP) Discussion

There was a statistically significant interaction effect between location of nursing practice and educational achievement at the level of $p < .040$. Table 36 presents the sample mean scores and the mean score differences between samples.

The mean score for the hospital-based sample with educational achievement was higher than the hospital-based sample without educational achievement. The difference in mean scores was 7.92*. The mean score difference between the community-based sample with educational achievement and the community-based sample without educational achievement was minimal (-0.04). The mean score for the community-based sample without educational achievement was higher than the hospital-based sample without educational achievement. The mean score difference was 11.58***. The mean score for the hospital-based sample with educational achievement was lower than the mean score community-based sample with educational achievement (3.62).

* $p < .05$

*** $p < .001$

TABLE 36

CNOP: SAMPLE MEAN SCORES AND MEAN SCORE DIFFERENCES FOR LOCATION OF NURSING PRACTICE AND EDUCATIONAL ACHIEVEMENT

Location of Nursing Practice	No Educational Achievement	Educational Achievement	Mean Score Difference
Hospital	160.20	168.12	7.92*
Community	171.78	171.74	-.04

Educational Achievement	Hospital Location	Community Location	Mean Score Difference
No Educational Achievement	160.20	171.78	11.58***
Educational Achievement	168.12	171.74	3.62

*p < .05

***p < .001

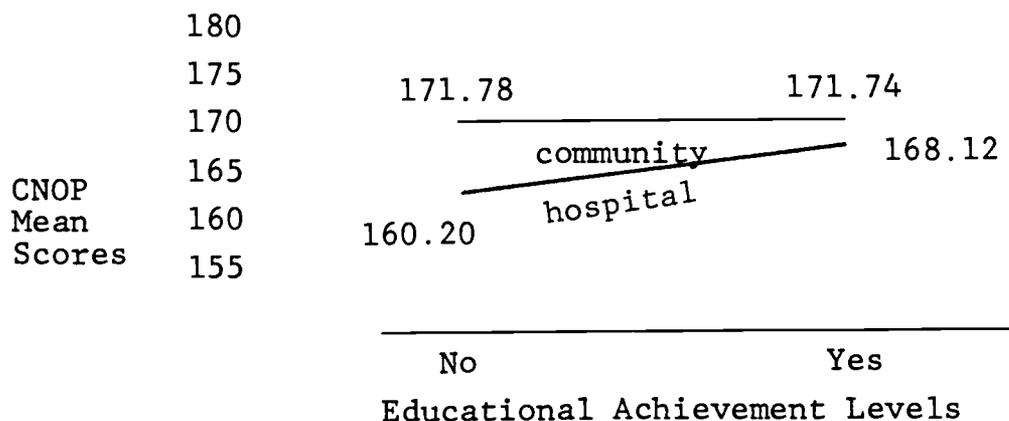
The simple effects of location of nursing practice and educational achievement were further examined by using the Tukey q statistic. The findings, as shown in Figure 1, revealed that the community-based sample with no educational achievement had a more positive mean score (M=171.78) than did the hospital-based sample without educational achievement (M=160.20). The level of significance was $p < .001$ with a calculated Tukey q value of 5.97. No significant difference was found between the community-based sample with educational achievement

(M=168.12). The hospital-based sample without educational achievement had a lower mean score (M=160.20) than did the hospital-based sample with educational achievement (M=168.12). The level of significance was $p < .01$ with a calculated Tukey q value of 4.08. No significant difference was found between the community-based sample without educational achievement (M=171.98) and the community-based sample with educational achievement (171.74) using this test statistic.

Based on the analysis of this finding the null hypothesis was rejected.

FIGURE I.

CNOP MEAN SCORES FOR
INTERACTION EFFECT BETWEEN
LOCATION OF NURSING PRACTICE
AND EDUCATIONAL ACHIEVEMENT



Cancer Attitude Survey (CAS) Discussion

There was no statistically significant interaction effect between location of nursing practice and educational achievement. Table 37 presents the sample mean scores and the mean score differences between samples.

The mean score differences ranged between -0.73 for the hospital-based sample with educational achievement and no educational achievement to 3.63 for the community-based sample with no educational achievement and the hospital-based sample with no educational achievement. None of the mean score differences between samples was statistically significant.

The analysis of this finding indicated there was no statistically significant difference in mean scores between samples based on location of nursing practice and the levels of educational achievement. Therefore, the null hypothesis was retained.

TABLE 37

CAS: SAMPLE MEAN SCORES AND MEAN SCORE
DIFFERENCES FOR LOCATION OF NURSING
PRACTICE AND EDUCATIONAL ACHIEVEMENT

Location of Nurs- ing Practice	No Educational Achievement	Educational Achievement	Mean Score Difference
Hospital Location	77.93	80.51	2.58
Community Location	81.56	82.29	-0.73

Educational Achievement	Hospital Location	Community Location	Mean Score Difference
No Educational Achievement	77.93	81.56	3.63
Educational Achievement	80.51	82.29	1.78

Summary

Based on the analysis of the CNOP finding, a statistically significant interaction effect ($p < .04$) was found between location of nursing practice and educational achievement. The hospital-based sample achieved a more positive mean score with educational achievement than did the community-based sample. Therefore, the null hypothesis was rejected.

The analysis of the CAS data revealed no statistically significant interaction effect between the location of nursing practice and educational achievement. Based on this finding the null hypothesis was retained.

HO₆: There is no significant interaction effect between clinical exposure and educational achievement.

The sample was divided into four groups. Group One (A,F) encompassed 50 nurses with no clinical and no educational achievement. Group Two (B,F) consisted of 50 nurses with clinical exposure and no educational achievement. Group Three (C,G) contained 50 nurses with no clinical exposure and educational achievement. Group Four (D,H) included 50 nurses with clinical exposure and educational achievement. The hypothetical concepts for the Cancer Nursing Outreach Program (CNOP) and the Cancer Attitude Survey (CAS) were examined. A three-way analysis of variance (fixed design) was used to analyze the findings. The test statistic used was the F, with the .05 level of significance being used for determination of differences. The computed value of F for the CNOP was 0.78 and the tabular value for the F statistic for the CAS was .817 (See Table 38). The critical F value was 3.89.

TABLE 38

SOURCE OF VARIATION: CLINICAL EXPOSURE
AND EDUCATIONAL ACHIEVEMENT

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Clinical Exposure & Educational Achievement	CNOP	1	14.487	14.487	.078	.780
	CAS	1	27.692	27.692	.817	.367

Cancer Nursing Outreach Program (CNOP) Discussion

There was no statistically significant interaction effect between clinical exposure and educational achievement. Table 39 presents the sample mean scores and the mean score differences between samples.

The mean score differences ranged from 1.65 for the sample with educational achievement and no clinical exposure and the sample with educational achievement and clinical exposure to 4.49 for the non-clinically exposed sample with no educational achievement and the non-clinically exposed sample with educational achievement. The mean score differences between samples were not statistically significant.

The analysis of this finding indicated there was no statistically significant difference in mean scores between samples based on clinical exposure and educational achievement. Therefore, the null hypothesis was retained.

TABLE 39

CNOP: SAMPLE MEAN SCORES AND MEAN SCORE
DIFFERENCES FOR CLINICAL EXPOSURE
AND EDUCATIONAL ACHIEVEMENT

Clinical Exposure	No Educational Achievement	Educational Achievement	Mean Score Difference
No Clinical Exposure	164.62	169.11	4.49
Clinical Exposure	167.35	170.76	3.41

Educational Exposure	No Clinical Exposure	Clinical Exposure	Mean Score Difference
No Educational Achievement	164.62	167.35	2.73
Educational Achievement	169.11	170.76	1.65

Cancer Attitude Survey (CAS) Discussion

There was no statistically significant interaction effect between clinical exposure and educational achievement. Table 40 presents the sample mean scores and the mean score differences between samples.

The mean score differences ranged from 0.91 for the clinically exposed sample with no educational achievement and the clinically exposed sample with educational achievement to 2.95 for the non-clinically exposed sample without educational achievement and the clinically exposed

sample without educational achievement. The mean score differences between samples were not statistically significant.

The analysis of this finding indicated there was no statistically significant difference in mean scores between samples based on clinical exposure and educational achievement. Therefore, the null hypothesis was retained.

TABLE 40

CAS: SAMPLE MEAN SCORES AND MEAN SCORE DIFFERENCES FOR CLINICAL EXPOSURE AND EDUCATIONAL ACHIEVEMENT

Clinical Exposure	No Educational Achievement	Educational Achievement	Mean Score Difference
No Clinical Exposure	78.27	80.67	2.40
Clinical Exposure	81.22	82.13	0.91
Educational Achievement	Clinical Exposure	No Clinical Exposure	Mean Score Difference
No Educational Achievement	78.27	81.22	2.95
Educational Achievement	80.67	82.13	1.46

Summary

Based on the analysis of data from both instruments no significant interaction effect was found between location of nursing practice and educational achievement levels. Therefore, the null hypothesis was retained.

H_{07} : There is no significant interaction effect between location of nursing practice and clinical exposure and educational achievement.

The sample was divided into eight groups. Group One (A) included 25 hospital-based nurses with no clinical exposure and no educational achievement. Group Two (B) contained 25 hospital-based nurses with clinical exposure and no educational achievement. Group Three (C) consisted of 25 hospital-based nurses with educational achievement. Group Four (D) consisted of 25 hospital-based nurses with clinical exposure and educational achievement. Group Five (E) included 25 community-based nurses with no clinical exposure and no educational achievement. Group Six (F) consisted of 25 community-based nurses with clinical exposure and no educational achievement. Group Seven (G) included 25 community-based nurses with no educational achievement and no clinical exposure. Group Eight (H) consisted of 25 community-based nurses with clinical exposure and educational achievement. The hypothetical dimensions for

the Cancer Nursing Outreach Program (CNOP) and the Cancer Attitude Survey (CAS) were studied. A three-way analysis of variance (fixed design) was used to assess the findings. The test statistic used was the F, with the .05 level of significance being used for determination of differences. The computed value of F for the CNOP was .094 and the computed value of F for the CAS was .735 (See Table 41). The tabular value was 3.89.

TABLE 41

SOURCE OF VARIATION: LOCATION OF NURSING
PRACTICE AND CLINICAL EXPOSURE
AND EDUCATIONAL ACHIEVEMENT

Source of Variation	Instrument Used	Degrees of Freedom	Sum of Squares	Mean Squares	Computed F	Significance of F
Location of Nursing Practice & Clinical Exposure & Educational Achievement	CNOP	1	17.350	17.350	.094	.760
	CAS	1	24.944	24.944	.736	.392

Cancer Nursing Outreach Program (CNOP) Discussion

There was no statistically significant interaction effect between location of nursing practice, clinical exposure and educational achievement. Tables 42 and 43 present the sample mean scores and the mean score differences for the eight samples. No significant mean score differences were found.

Since the analysis of this finding indicated no statistically significant difference between samples based on location of nursing practice, clinical exposure and educational achievement, the null hypothesis was retained.

TABLE 42

CNOP: SAMPLE MEAN SCORES AND MEAN SCORE DIFFERENCES FOR LOCATION OF NURSING PRACTICE AND CLINICAL EXPOSURE AND NO EDUCATIONAL ACHIEVEMENT

<u>NO EDUCATIONAL ACHIEVEMENT</u>			
<u>Location of Nursing Practice</u>	<u>No Clinical Exposure</u>	<u>Clinical Exposure</u>	<u>Mean Score Difference</u>
Hospital Location	160.85	159.54	-1.31
Community Location	168.39	175.16	6.77
<u>Clinical Exposure</u>	<u>Hospital Location</u>	<u>Community Location</u>	<u>Mean Score Difference</u>
No Clinical Exposure	160.85	168.39	7.54
Clinical Exposure	159.54	175.16	15.62

TABLE 43

CNOP: SAMPLE MEAN SCORES AND MEAN SCORE
DIFFERENCES FOR LOCATION OF NURSING
PRACTICE AND CLINICAL EXPOSURE
AND EDUCATIONAL ACHIEVEMENT

EDUCATIONAL ACHIEVEMENT			
Location of Nurs- ing Practice	No Clinical Exposure	Clinical Exposure	Mean Score Difference
Hospital Location	168.73	167.52	-1.21
Community Location	169.49	174.00	4.51
Clinical Exposure	Hospital Location	Community Location	Mean Score Difference
No Clinical Exposure	168.73	169.49	0.076
Clinical Exposure	167.52	174.00	6.48

Cancer Attitude Survey (CAS) Discussion

There was no statistically significant interaction effect between location of nursing practice, clinical exposure and educational exposure. Tables 44 and 45 present the sample mean scores and the mean score differences for the eight samples. No significant mean score differences were found.

Since the analysis of this finding indicated no statistically significant difference between samples based on location of nursing practice, clinical exposure and educational achievement, the null hypothesis was retained.

TABLE 44

CAS: SAMPLE MEAN SCORES AND MEAN SCORE DIFFERENCES FOR LOCATION OF NURSING PRACTICE AND CLINICAL EXPOSURE AND NO EDUCATIONAL ACHIEVEMENT

<u>NO EDUCATIONAL ACHIEVEMENT</u>			
<u>Location of Nurs- ing Practice</u>	<u>No Clinical Exposure</u>	<u>Clinical Exposure</u>	<u>Mean Score Difference</u>
Hospital Location	77.51	78.36	0.85
Community Location	79.04	84.08	5.04
<u>Clinical Exposure</u>	<u>Hospital Location</u>	<u>Community Location</u>	<u>Mean Score Difference</u>
No Clinical Exposure	77.51	79.04	1.53
Clinical Exposure	78.36	84.08	5.72

TABLE 45

CAS: SAMPLE MEAN SCORES AND MEAN SCORE
DIFFERENCES FOR LOCATION OF NURSING
PRACTICE AND CLINICAL EXPOSURE
AND EDUCATIONAL ACHIEVEMENT

EDUCATIONAL ACHIEVEMENT			
Location of Nurs- ing Practice	No Clinical Exposure	Clinical Exposure	Mean Score Difference
Hospital Location	80.12	80.90	0.78
Community Location	81.22	83.36	2.14
Clinical Exposure	Hospital Location	Community Location	Mean Score Difference
No Clinical Exposure	80.12	81.22	1.10
Clinical Exposure	80.90	83.36	2.46

Summary

Analysis of the CNOP and the CAS data for determination of interaction effects between location of nursing practice, clinical exposure and educational achievement indicated no statistical significant interactions. Therefore, the null hypothesis was retained.

Correlations For Demographic Characteristics

Pearson Product Moment Correlations were used to show the relationship between five selected demographic characteristics and two independent variables. The demographic variables chosen for investigation were: age of the nurse, basic nursing education, years in nursing practice, length of time in current position and the amount of cancer content provided in the basic nursing program. The two dependent variables were the Cancer Nursing Outreach Program tool (CNOP) and the Cancer Attitude Survey (CAS).

The magnitude of the correlation coefficients between the five demographic variables ranged from .08 to .57 as presented in Table 46. The median for the correlations was .16. The best correlation occurred between age and the remaining four demographic variables: Basic nursing education, length of time in current position, years in nursing practice and cancer content provided in basic nursing program.

The correlations revealed that as the age of the nurse increased so did the length of time in current position and years in nursing practice. Age correlated well with the amount of cancer content provided in the basic nursing program. As the age of the nurse increased the amount of cancer content decreased.

TABLE 46

CORRELATION COEFFICIENTS FOR FIVE
DEMOGRAPHIC CHARACTERISTICS

	Basic Nursing Program	Length of Employment	Time in Position	Cancer Content	Age
Basic Nursing Program	--				
Length of Employment	-.14* (n=193)	--			
Time in Position	-.08 (n=193)	.34*** (n=194)	--		
Cancer Content in Program	.15* (n=167)	-.16* (n=166)	-.08 (n=166)	--	
Age	-.32*** (n=179)	.57*** (n=177)	.32*** (n=177)	-.21** (n=159)	--

* p < .05, ** p < .01, *** p < .001

The magnitude of the correlation coefficients for the two dependent variables (CNOP, CAS) and the five demographic variables was not, in most instances, statistically significant. Table 47 indicates that the magnitude of the correlations for the CNOP ranged from $-.02$ to $.16$ with a median of $.04$. The magnitude of the correlation coefficients for the CAS ranged from $.001$ to $.23$ with a median of $.08$.

There was little to no relationship between the demographic variables and the mean scores obtained using the two dependent variables (CNOP, CAS). The correlation coefficient obtained between the two dependent variables was significant at the level of $p < .001$. The magnitude of the relationship was $.42$ ($N=200$).

TABLE 47

CORRELATION COEFFICIENTS FOR DEMOGRAPHIC
CHARACTERISTICS AND DEPENDENT VARIABLES

	CNOP	CAS
Basic Nursing Program	.03 (n=196)	.001 (n=196)
Length of Employment	.16** (n=196)	.16** (n=196)
Time in Current Position	.02 (n=197)	.003 (n=197)
Cancer Content in Program	.02 (n=169)	-.07 (n=169)
Age	.13* (n=180)	.23*** (n=180)

* $p < .05$, ** $p < .01$, *** $p < .001$

Summary

The central problem of this study was to examine the attitudes of nurses toward the cancer patient and the disease entity cancer and to determine if location of nursing practice, clinical exposure and educational achievement influenced these attitudes. A three-way analysis of variance (fixed design) was used to analyze the findings. The test statistic was the F, with the .05

level of significance established for assessment of differences. Determination of simple effects was carried out by utilization of the exact Tukey q computational formula.

The analysis of the data, as shown in Table 48, resulted in the following findings. The sample mean scores were significantly influenced by the location of nursing practice. The nurses practicing in the community had more positive mean scores than did the nurses practicing in the hospital. The statistical significance of this finding was supported by the CNOP and the CAS. Nurses clinically exposed to six or more cancer patients each month for one year had more positive mean scores than nurses without this clinical exposure. The statistical significance of this finding was supported by the CAS. However, the CNOP did not support this finding. Nurses completing an educational endeavor germane to cancer nursing obtained more positive mean scores than nurses without this educational achievement. The statistical significance of this finding was supported by the CNOP and the CAS. A statistically significant interaction effect was found between location of nursing practice and educational achievement using the CNOP instrument. However, analysis of the CAS

data did not support this finding. No statistically significant interaction effect was found between location of nursing practice, clinical exposure and educational achievement using either instrument.

Pearson Product Moment Correlations were used to assess the relationship between selected demographic characteristics and attitude mean scores. Age was found to have a correlation coefficient of significant magnitude when correlated with years employed in nursing practice, length of time in current position, basic nursing program and the amount of cancer content provided in basic nursing program. The magnitude of the correlation coefficients for other selected demographic characteristics was not significant.

There was little to no relationship between the demographic characteristics and the two dependent variables (CNOP, CAS). However, the dependent variables were found to have a correlation of significant magnitude between them.

TABLE 48

SUMMARY OF FINDINGS FOR HYPOTHESES TESTED
USING THREE-WAY ANALYSIS OF VARIANCE (FIXED-DESIGN)
F STATISTIC

Hypotheses Tested		Summary and Significant Levels	
		CNOP	CAS
HO ₁	No significant difference between attitude scores for location of nursing.	Nurses in community had more positive attitudes than hospital nurses. (p < .001 Comm)	Nurses in community had more positive attitudes than hospital nurses. (p < .001 Comm)
HO ₂	No significant difference between the attitude scores for clinical exposure to cancer patients.	No significant differences.	Nurses with clinical exposure had more positive attitude than non-clinically exposed. (p < .008)
HO ₃	No significant difference between the attitude scores for educational achievement.	Nurses with educational exposure had more positive attitudes than non-educationally exposed. (p < .042)	Nurses with educational achievement had more positive attitudes than non-educationally exposed. (p < .046)
HO ₄	No significant interaction effect between location of nursing practice and clinical exposure to cancer patients.	No significant differences.	No significant differences.

TABLE 48
 (continued)
 SUMMARY OF FINDINGS FOR HYPOTHESES TESTED
 USING THREE-WAY ANALYSIS OF VARIANCE (FIXED-DESIGN)
 F STATISTIC

Hypotheses Tested		Summary and Significant Levels	
		CNOP	CAS
HO ₅	No significant interaction effect between location of nursing practice and educational achievement.	Hospital nurses with educational achievement had more positive attitudes than hospital nurses without achievement and community nurses with and without educational achievement. (p < .04 Hospital)	No significant differences.
HO ₆	No significant interaction effect between clinical exposure to cancer patients and educational achievement.	No significant differences.	No significant differences.
HO ₇	No significant interaction effect between location of nursing practice and clinical exposure to cancer patients and educational achievement.	No significant differences.	No significant differences.

CHAPTER V.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Individuals with cancer, as well as the nurses caring for them, are aware of the societal stigma surrounding the disease entity cancer. Frequently patients are reluctant to talk about what they are experiencing, and nurses openly avoid exploring their concerns because of the negativity associated with a cancer diagnosis. Nursing intervention for the cancer patient is, therefore, a special challenge. Included within this challenge is an implicit demand that nurses be cognizant of the attitudes they hold.

The central purpose of this study was to examine the attitudes of nurses toward cancer patients and the disease entity cancer, and to determine if location of nursing practice, clinical exposure and educational achievement influenced these attitudes. The major objective, procedures and findings are summarized in the following section.

Objective #1. To review existing research literature appurtenant to personality characteristics of nurses, attitudes of nurses toward nursing practice and attitudes of nurses toward cancer patients and cancer as a disease

entity.

Perusal of the literature revealed little information relative to personality characteristics of nurses. The few studies reported were investigations conducted by graduate students involved in research endeavors of limited dimensions. This made comparisons of findings difficult. However, one personality characteristic appeared to surface more than any other. This characteristic was altruism. Several studies supported the belief that individuals entered the nursing profession because of their intense motivation to help others and they often left it when they felt the practice setting prevented them from giving comprehensive care and helpful assistance to patients.

A limited number of small studies focused on the attitudes of nurses toward clinical practice. Overall, the findings revealed that nurses held positive attitudes toward their nursing practice and if they had to decide once again which career to enter they would choose nursing. Investigations related to attitudes of nurses toward cancer patients were scarce and inconsistent. One study reflected on the patients most disliked and ignored by nurses. These patients were the unpleasant, the long terms, the mentally ill, the hypochondriacal and the dying. Another study revealed that nurses frequently stopped

communicating with cancer patients when they felt poorly equipped to cope with the conversational difficulties surrounding death.

Objective #2: To administer two attitude measurement instruments, the Cancer Nursing Outreach Program Affective Evaluation Tool (CNOP) and the Cancer Attitude Survey (CAS), to all study participants.

A randomly selected group of 200 nurses was administered the CNOP and the CAS attitude measurement instruments. Each participant was a registered nurse actively engaged in the practice of nursing in Oregon. All participants were requested to complete the instruments following a brief overview of the study.

Objective #3: To examine the relationship between the sample mean scores and location of nursing practice, clinical exposure and educational achievement.

A three-way analysis of variance (fixed design) was used to analyze the data. The test statistic was the F, with the .05 level of significance being used to assess for differences. The following seven hypotheses were statistically analyzed:

- I. H_{01} : There is no significant difference between attitude scores for location of nursing practice.

Statistical analysis of the data revealed a significant difference in the mean scores between the nurses

located in the hospital and those located in the community (CNOP $p < .001$; CAS $p < .001$). Nurses in the community obtained more positive mean scores than nurses practicing in the hospital. Based on the statistical analysis applied to the data the hypothesis was rejected.

II. H_{O_2} : There is no significant difference between attitude scores for clinical exposure.

Statistical analysis of the CAS data revealed a significant difference in the mean scores between nurses caring for six or more cancer patients each month for the preceding year and those who did not. The level of significance was $p < .008$. The hypothesis was rejected based on this statistical analysis. Statistical analysis of the CNOP data revealed no significant difference between the sample mean scores. Therefore, the hypothesis was retained.

III. H_{O_3} : There is no significant difference between attitude scores for educational achievement.

Statistical analysis of the data revealed a significant difference in mean scores between nurses with educational achievement and those without this exposure. The level of significance on the CNOP was $p < .042$ and the CAS $p < .046$. Based on the statistical analysis applied to the data, the hypothesis was rejected.

- IV. H_{04} : There is no significant interaction effect between location of nursing practice and clinical exposure.

Statistical analysis of the data indicated there was no significant interaction effect between location of nursing practice and clinical exposure to cancer patients. Based on the statistical analysis applied to the findings from the CNOP and the CAS, the hypothesis was retained.

- V. H_{05} : There is no significant interaction effect between location of nursing practice and educational achievement.

Statistical analysis of the CNOP data indicated a significant interaction effect between location of nursing practice and educational achievement. The level of significance was $p < .04$. Therefore, the hypothesis was rejected. Statistical analysis of the CAS data revealed no significant interaction effect between location of nursing practice and educational achievement and the hypothesis was retained.

- VI. H_{06} : There is no significant interaction effect between clinical exposure and educational achievement.

Statistical analysis of the CNOP and CAS data indicated there was no significant interaction effect between clinical exposure to cancer patients and educational achievement. Based on the statistical analysis applied to the data, the hypothesis was retained.

VII: HO₇: There is no significant interaction effect between location of nursing practice and clinical exposure and educational achievement.

Statistical analysis of the CNOP and CAS data indicated there was no significant interaction effect between location of nursing practice, clinical exposure to the cancer patient and educational achievement. Based on the statistical analysis applied to the data, the hypothesis was retained.

Objective #4: To examine the relationship between selected demographic characteristics and the sample mean scores.

Pearson Product Moment Correlations were conducted to determine the relationship between five selected demographic characteristics. The characteristics selected for investigation were age, years in nursing practice, length of time in current position, basic educational nursing program and cancer content provided in the basic nursing program. Age correlated well with the other four characteristics. However, there was little or no relationship between the demographic characteristics and the mean scores nurses obtained on the two measurement instruments.

Objective #5: To utilize findings as a basis for making recommendations relative to nursing interventions applicable to the care of cancer patients.

Analysis of the data revealed statistically significant findings for the main effects of location of nursing practice, clinical exposure to cancer patients and educational achievement. Based on the statistical analysis of the data, suggestions were made in the recommendation section relative to nursing care interventions.

Conclusions

As a result of the findings of this study the following conclusions were drawn:

1. The location of nursing practice significantly affected the attitudes of nurses toward cancer patients and the disease entity cancer. Nurses practicing in the community had more positive mean scores than did the nurses practicing in the hospital setting. Perhaps part of this difference could be explained by the relative position of the patient on the health-illness continuum, i.e. the point in the natural history of the disease at which the patient presents for treatment. When the patient is acutely ill the care given is usually provided by hospital personnel in a hospital setting. When the patient is in the chronic stages of disease the care given is administered in the community setting and often this is the patient's home.

Care in the hospital setting requires that the patient penetrate a large institutionalized system geared to caring for individuals with acute illnesses. In the community setting the nurse is penetrating the patient's environment which is controlled by and large by the patient. Since the hospital-based nurse usually cares for the cancer patient at a time when the patient is often experiencing intense physical pain and emotional distress,

the nurse is required to provide expert physical, emotional and technical assistance of an intense nature. The community-based nurse, on the other hand, usually provides nursing care during the chronic and terminal stages. This nursing care is less intense, less technical and administered after the patient has begun to adapt to the cancer diagnosis and the treatment modalities instituted.

Another factor that may have had an influence on the attitude mean scores for location of practice is the factor of home environment versus hospital environment. The community-based nurse interacts with the patient in the safety and security of his own home while the interaction between hospital nurse and patient takes place in an atmosphere perceived by the patient as foreign. Community-based nurses, more often than hospital-based nurses, are able to obtain a broader picture of the patient and his family because of location of practice.

Another possibility that could have contributed to the positive attitude mean score difference may be related to the factors of autonomy and independence. Community-based nurses, more often than hospital-based nurses, exercise greater autonomy and independence of action in planning for patient care, implementing care plans and evaluating patient outcomes. This occurs as a result of the community-based nurse being the only health care professional in close proximity to the patient when these

decisions are made. That is not the case in the hospital setting.

An additional impression reflective of the more positive attitudes held by community-based nurses could possibly be explained by the fact that they are not simultaneously confronted with large numbers of cancer patients as hospital-based nurses frequently are. A large volume of cancer patients being cared for in the acute phase of their disease process has the potential of exponentially contributing to a nurse's experiencing an aura of defeat. The emotional and physical impact that this disease inflicts on patients, families and health care providers contributes to feelings of sadness and sadness is often expressed in negative attitudes and behaviors.

2. Clinical exposure to six or more cancer patients each month for one year had a statistically significant effect on the attitude of nurses. The nurses with this exposure held more positive attitudes. Achieving a more positive attitude mean score based on the number of patients cared for could be influenced by several factors. One, the development of adaptive or coping strategies that assist nurses with their personal adaptation to the emotional pain associated with caring for large numbers of cancer patients. Two, the development of a life philosophy that decreases the fears associated with death, i.e. a belief in a supreme being. Three, the development of a

value system that encourages purposeful living on a day to day basis. Four, the expansion of nursing skills and clinical expertise that results in the nurses' feeling good about the care provided, i.e. ways to reduce patient pain and increased interactive effectiveness with bereaved family members.

3. Educational achievement significantly affected the attitudes of nurses toward cancer patients and the disease entity cancer. Nurses who completed two didactic cancer theory courses, entitled "Introduction to Biological and Physical Concepts Basic to Cancer Care" and "Nursing Care of the Cancer Patient", held more positive attitudes than nurses without this educational achievement. This finding may be a reflection of what nurses have learned from the educational experience. Part of the teaching effort focused on the belief that cancer is a chronic disease which is manageable in all its aspects. Nurses are encouraged to accept, as part of their role, the responsibility for supplying reassurance to the patient which will promote an attitude of hope and positive action. They are also encouraged to assume the responsibility for encouraging a positive cancer conscience through dissemination of accurate information relative to the prevention, early detection and current methods of cancer treatment. Nurses are taught that education is a primary component

of the nursing process through which attitudes are changed and health care improved.

4. Hospital-based nurses with educational achievement had significantly more positive attitude mean scores than did hospital-based nurses without educational achievement. Community-based nurses with or without educational achievement obtained more positive mean scores than did the hospital-based nurses with educational achievement. Overall, educational achievement made more of a difference for the hospital-based sample than for the community-based sample.

Although nurses in the community setting had more positive mean scores overall than did their hospital-based colleagues, the difference in the attitudes of the hospital-based sample showed the greatest overall improvement as the result of education. This suggests that the hospital environment can be countered by educational exposure, alleviating, somewhat the aura of defeat and negativism that characterized the attitudes of many nurses without this exposure.

5. The magnitude of the relationship between the five demographic characteristics of age, basic nursing education, length of time in current position, years in nursing practice and cancer content provided in the basic nursing program was significant. The strongest relation-

ship occurred between age and the remaining four demographic variables. The correlations revealed that as the age of the nurse increased so did the length of time spent in the current nursing position and the years in nursing practice. As the age of the nurse increased the amount of cancer content provided in the basic nursing program decreased.

The magnitude of the correlation coefficients for the two measurement instruments and the five demographic characteristics was not, in most instances, statistically significant.

6. Although the two measurement instruments, the Cancer Nursing Outreach Program Affective Evaluation Tool and the Cancer Attitude Survey were addressing several different concepts, they appeared to have a correlation of significant magnitude between them. The instruments tended to work together to address the hypothetical dimensions of assertiveness, self awareness, sexuality (personal and patient), pediatric thanatology, hopefulness and hopelessness.

7. Neither measurement instrument was standardized so determination of the magnitude of positivism was difficult to establish. The attitude mean scores obtained on the Cancer Attitude Survey paralleled the mean scores reported on a comparable study conducted by the Fred Hutchin-

son Cancer Research Center at the University of Washington. However, the mean attitude scores found on the Cancer Nursing Outreach Program Affective Evaluation Tool were different. The Hutchinson study reported the CNOP mean scores to be seventeen points below those found in this present study (See Appendix I for Mean Scores and Standard Deviations).

Recommendations for Action

On the basis of the findings of this study, the following recommendations are made:

1. The Cancer Nursing Program Outreach Affective Evaluation Tool and the Cancer Attitude Survey be administered and scored under standard and uniform testing conditions with norms established. The standardization of instruments would permit comparisons between and among groups.

2. The item pool of questions contained in the two instruments be expanded to include items germane to the spiritual dimensions of cancer care. The literature perusal failed to disclose any research efforts appurtenant to a nurse's religious value orientation and its relationship to cancer patient care. Patients faced with a terminal illness are frequently concerned with this dimension of thought and seek assistance from nurs-

ing personnel.

3. Nurses employed in the hospital setting be encouraged to enroll in cancer education classes. The analysis of data has shown that hospital-based nurses with educational achievement had more positive attitudes toward the cancer patient and the disease entity cancer than did the hospital-based nurses without this educational experience.

4. Nurses be extended the opportunity of working with increased numbers of cancer patients if they so choose. By increasing the quantity of patients, the nurse would have a greater opportunity to refine her clinical, interpersonal and theoretical nursing skills. This could culminate in improved patient care and a more satisfied nurse.

5. Nurses be made aware of the important contribution they can make relative to the creation of a positive atmosphere for cancer patients. This positivism should be incorporated into their nursing role and into their educational efforts.

6. Nurses caring for cancer patients be aware of the verbal and non-verbal behaviors they exhibit to impressionable student nurses and colleagues. If nurses manifest humane and positive behaviors toward cancer patients, the individuals within their influential domain

may incorporate that positivism and, in turn, emulate it.

7. Nurses contemplating employment in the field of oncology be assisted with the process of examining their attitudes toward the dimensions of cancer. This could be done by administering a cancer attitude instrument prior to assignment to an oncology unit and at various intervals thereafter.

8. Nurse educators throughout the duration of the nursing student's educational program identify and define desirable and undesirable attitudes and then plan, implement and reinforce educational experiences that build and encourage desirable attitudes and discourage undesirable ones. Nursing school curricula clearly need to reflect the importance of a positive stance toward this disease and build positivism into the curriculum.

9. Hospital administration offer the nurse, who is unable to communicate effectively with cancer patients, the consistent stable support system necessary to promote attitudinal changes that result in the delivery of the best possible nursing care to cancer patients.

10. Attitudes of nurses toward other types of patients, e.g. hypertensive, cardiac, kidney, pediatric and obstetrical, be assessed to determine the relationship of attitudes held by these nurses toward their patients

and the attitudes nurses hold toward cancer patients.

11. A reorientation in cancer research funding be required so that greater regard is paid to the non-biological aspects of this disease, i.e. health behavior, health education, and health promotion. The non-biological aspects have significant consequences for a diagnosis of cancer.

Suggestions for Additional Study

It is recommended that further research be conducted to:

1. Examiner in detail the attitudinal differences that exist between hospital-based and community-based nurses. Does the factor of proximity in the hospital setting contribute to the negative attitude generalization expressed by hospital-based nurses?

2. Examiner in detail educational methodologies that could be employed for assisting the nurse in acquiring increased knowledge and skills relative to the nursing care of cancer patients and theoretical formulations relative to attitude formation and change, e.g. importance of learning, effect of incentives, and importance of consistency between two attitudes in the same person or between attitude and behavior in the same person.

3. Examine in detail how clinical exposure affects the attitudes of nurses. Is there a critical number of patients for whom a nurse must care before her attitudes move from a positive stance to a negative one or from a negative posture to a positive one? Does continual exposure to cancer patients directly or indirectly contribute to negativity?

4. Initiate research designed to provide information relative to cancer nursing attitude trends. Are the existing negative attitude trends continuing and, if so, what intervention strategies are needed to alter these social trends?

5. Continue with the nursing research efforts that attempt to describe how health professionals express their negative attitudes to cancer patients. Does the recognition of one's own attitudes alter the therapeutic milieu and, therefore, improve patient care or does alteration of the therapeutic environment require an overt action component?

6. Initiate research studies which would explain the unique pattern of attitudes within a cancer staff and compare these patterns with other cancer and non-cancer health care professionals.

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APPENDICES

APPENDIX A. AGENCIES REQUIRING
PERMISSION LETTERS

School of Nursing Research Committee

REVIEW OF RESEARCH PROPOSALS FOR PROTECTION OF HUMAN RIGHTS

Principal Investigator: Karen Mischke

Student: _____

Title of Research Proposal: Attitudes of Hospital and Community Nurses Toward
Cancer and the Cancer Patient

Date Research Protocol submitted to Research Committee: _____

First Submission _____

Revised Copy _____

Date Research Protocol reviewed by Research Committee: _____

Disposition:

Approved. No further review needed.

Approved, but needs further review by UOHSC Committee on Human Research.

Returned for revision (See Recommendations, below)

Date Principal Investigator notified of disposition: March 30, 1989

RECOMMENDATIONS

Approved. No need for all-hill review. You need to describe on the IRQ how you will debrief individuals who express concerns with taking the questionnaire.

A letter of support from University Hospital is needed agreeing that staff can participate.

**MULTNOMAH COUNTY OREGON**

COMMUNITY HEALTH SERVICES DIVISION

INTER-OFFICE MEMORANDUM

TO: CHSD Supervisors/Managers
Redacted for Privacy

SUBJECT: Attached Survey

FROM: Billie Coeagaara

DATE: March 10, 1982

Ms. Karen Mischke has requested permission to conduct part of her doctoral dissertation research project (through the University of Washington) at the Multnomah County Department of Human Services. I have examined her proposal and am satisfied that her research will be conducted in an ethical manner. Legitimate research about how nurses feel about cancer and the cancer patient is welcomed. Such research will, hopefully, serve as a resource in considering how to support health professionals working with chronically ill clients.

I will appreciate if supervisors distribute the survey instrument to CHN's and NP's. Please, then, collect completed surveys and return to Kathy Wilson by March 18, 1982. Kathy will accumulate completed questionnaires, and forward them to Karen.

If anyone wishes to review the research proposal, I have a copy which I would be happy to loan.

Thanks ever so much!



March 3, 1982

To Whom It May Concern:

Ms. Karen Mischke has requested permission to conduct a doctoral dissertation research project at the Visiting Nurse Association. I have examined her proposal and am satisfied that her research will be conducted in an ethical manner regarding an explanation of her study to each nurse participant, the right of each student to decline participation and that safeguards have been taken to assure confidentiality of attitude and biographical information.

She has my permission to conduct her research with nurses employed at the Visiting Nurse Association.

Legitimate research about how nurses feel about cancer and the cancer patient is welcomed. Hopefully, such research will serve as a resource to this organization in considering how to support health professionals working with the chronically ill.

Sincerely,
Redacted for Privacy

Pamela A. Steding /
Associate Director

PAS:dc

March 1, 1982

To Whom It May Concern:

Ms. Karen Mischke has requested permission to conduct a doctoral dissertation research project at the Oregon Comprehensive Cancer Education Program. I have examined her proposal and am satisfied that her research will be conducted in an ethical manner regarding an explanation of her study to each nurse participant, the right of each student to decline participation and that safeguards have been taken to assure confidentiality of attitude and biographical information.

She has my permission to conduct her research with nurses enrolled in the Oregon Comprehensive Cancer Education Program.

Legitimate research about how nurses feel about cancer and the cancer patient is welcomed. Such research will, hopefully, serve as a resource to this program in considering how to support health professionals working with the chronically ill.

Sincerely,

Redacted for Privacy

(Mrs.) Charlotte Wright, R.N. M.S.
Associate Director
Oregon Comprehensive Cancer Education Program.

CW:jt

APPENDIX B. VERBAL ORIENTATION STATEMENT
FOR CANCER ATTITUDE STUDY

WRITTEN ORIENTATION STATEMENT
FOR CANCER ATTITUDE STUDY

VERBAL ORIENTATION STATEMENT
FOR
CANCER ATTITUDE STUDY

I am in the process of conducting a doctoral research project concerned with examining the attitudes of nurses toward cancer patients and the disease entity cancer. This project is attempting to determine if location of nursing practice, clinical exposure to cancer patients and educational achievement influence their attitudes.

Your involvement, along with others in this study, is requested because of your clinical expertise and area of specialization. I would greatly appreciate it if you would complete the questionnaires I am giving you and return them when completed. The questionnaires, including one related to demographic characteristics, carries no risk to you but does require 20 minutes of your time to complete.

Each of you will remain anonymous, unless you choose otherwise, and your answers will be kept completely confidential. The findings from this study will be shared with nurse researchers at the Hutchinson Cancer Research Center at the University of Washington since they are attempting to establish reliability and validity data for the enclosed instruments. The results of this research

project should be a useful resource for nurses working in the field of cancer nursing.

I welcome your cooperation because it is vitally important to this study. However, if any of you choose not to participate I will respect your decision.

Thank you for your assistance and for your contribution to cancer nursing research.

WRITTEN ORIENTATION STATEMENT FOR CANCER ATTITUDE STUDY

Dear Nursing Colleague:

I am in the process of conducting a doctoral research project concerned with examining the attitudes of nurses toward cancer patients and the disease entity cancer. This project is attempting to determine if location of nursing practice, clinical exposure to cancer patients and educational achievement influence their attitudes.

Your involvement, along with others in this study, is requested because of your clinical expertise and area of specialization. I would greatly appreciate it if you would complete the questionnaires I am giving you and return them when completed. The questionnaires, including one related to demographic characteristics, carries no risk to you but does require 20 minutes of your time to complete.

Each respondent will remain anonymous, unless you choose otherwise, and your answers will be kept completely confidential. The findings from this study will be shared with nurse researchers at the Hutchinson Cancer Research Center at the University of Washington since they are attempting to establish reliability and validity data for the enclosed instruments. The results of this research project should be a useful resource for nurses working in the field of cancer nursing.

Your cooperation is vitally important to this project and is welcomed. However, if you choose not to participate I will respect your decision.

If you have any questions, please contact me at my home (223-3270) or at the Oregon Health Sciences Center School of Nursing (MacKenzie Hall, 3191C, telephone 225-7709).

Thank you for your assistance.

Sincerely,

Karen Mischke, R.N., M.N.



APPENDIX C. BASIC INSTRUCTIONS FOR
ATTITUDE INSTRUMENTS

BASIC INSTRUCTIONS
FOR
CANCER NURSING OUTREACH PROGRAM
EVALUATION AFFECTIVE TOOL*

Instructions: Below are some statements which might reflect your current beliefs and feelings about working with cancer patients. Please indicate the degree to which you agree or disagree with each statement by circling the number on the response scale below the item. There are no right or wrong answers. Please answer ALL items.

Strongly disagree

Strongly agree

1

2

3

4

5

6

*Permission to include a copy of the Cancer Nursing Outreach Program Affective Evaluation tool in the dissertation was not granted since the instrument is in the process of being published. However, information relative to the CNOP can be obtained from Gayle Hongladoram, R.N., Ph.D, (See Procurement Policy in Appendix E, p. 164).

BASIC INSTRUCTIONS
CANCER ATTITUDE SURVEY

This instrument, the Cancer Attitude Survey, has a list of statements expressing opinions with which you may or may not agree. Beside each statement is a lined box and labeled as follows (sample of statement written on blackboard):

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Please indicate the degree to which you agree or disagree with each statement by checking the appropriate space. Please consider each statement carefully. Do not spend too much time on any one statement. Do not skip any items. There are no right or wrong answers; the only correct responses are that that are true for you. This inventory is being used for evaluation purposes only and is completely confidential.

APPENDIX D. DESCRIPTION OF INSTRUMENTS

DESCRIPTION OF INSTRUMENTS

CANCER NURSING OUTREACH PROGRAM AFFECTIVE
EVALUATION TOOL (CNOP)

This tool was developed by the Hutchinson Cancer Research Center at the University of Washington in 1979 for use in a three year, four state study of nursing attitudes toward cancer and the cancer patient. The Hutchinson study was supported by the National Cancer Institute and was completed in March, 1982.

The CNOP contains forty items in the item pool with code circled answers. The total score represents a "positive attitude" in the four hypothetical dimensions of: pediatric thanatology, self awareness, sexuality (personal and patient) and assertiveness.

Total scores on the scale potentially range from 40 to 240. Item responses have a 6 point Likert format ranging from strongly disagree (1) to strongly agree (6). Contained in the CNOP is an 8 item social desirability scale taken from Satow and Greenwald. Total score is coded in "high" desirability direction. Higher scores denote higher tendency toward offering the socially desired response. Potential range of scores is 8 to 48.

CANCER ATTITUDE SURVEY (CAS)

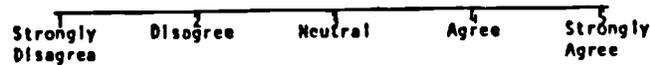
This tool was developed at the University of Pittsburgh School of Nursing in 1976 by Marilee Donovan. It contains twenty items in the item pool with code circled answers. The total score represents "positive attitude" in two dimensions: hopelessness and hopefulness. Total scores on the scale potentially range from 20 to 100. Item responses have a 5 point Likert format ranging from (1) strongly disagree to (5) strongly agree. This tool was used in concert with the CNOP tool in the Hutchinson Cancer Research project funded by the National Cancer Institute. Preliminary results show the tool to be both reliable and valid.

CANCER ATTITUDE SURVEY

Name _____

Subject No. _____

Following is a list of statements expressing opinions with which you may or may not agree. Beside each statement is a lined box labeled as follows:



Indicate the degree to which you agree or disagree with each statement by checking the appropriate space. Please consider each statement carefully. Do not spend too much time on any one statement. Do not skip any items. There are no "right" or "wrong" answers; the only correct responses are those that are true for you. THIS INVENTORY IS BEING USED FOR EVALUATION PURPOSES ONLY AND IS COMPLETELY CONFIDENTIAL.

- | | Strongly Disagree | Strongly Agree |
|--|-------------------|----------------|
| ___ 1. Physicians should tell patients if their diagnosis is cancer. | 1 2 3 4 5 | |
| ___ 2. Terminal patients should be hospitalized. | 1 2 3 4 5 | |
| ___ 3. It's depressing to work with cancer patients. | 1 2 3 4 5 | |
| ___ 4. The course of cancer is similar to many other chronic diseases, such as emphysema and congestive heart failure. | 1 2 3 4 5 | |
| ___ 5. I would want to know if my illness was cancer. | 1 2 3 4 5 | |
| ___ 6. As a nurse, I can help the cancer patient solve many of the problems he faces. | 1 2 3 4 5 | |
| ___ 7. Generally speaking, cancer is a hopeless disease. | 1 2 3 4 5 | |
| ___ 8. I would be ashamed to tell others that my father had cancer. | 1 2 3 4 5 | |
| ___ 9. The terminal cancer patient should receive narcotic analgesics whenever he requests it. | 1 2 3 4 5 | |

- | | Strongly Disagree | Strongly Agree |
|---|-------------------|----------------|
| ___ 10. The patient has the right to withhold information from his family about his disease? | 1 2 3 4 5 | |
| ___ 11. There is little a nurse can do for the cancer patient. | 1 2 3 4 5 | |
| ___ 12. People with cancer can refuse treatment. | 1 2 3 4 5 | |
| ___ 13. Families should be spared the experience of having the cancer patient die at home. | 1 2 3 4 5 | |
| ___ 14. Even if detected early, cancer usually kills. | 1 2 3 4 5 | |
| ___ 15. Cancer patients should not be admitted to Intensive Care Units. | 1 2 3 4 5 | |
| ___ 16. Many cancer patients are cured. | 1 2 3 4 5 | |
| ___ 17. In general, cancer patients cope well with their diagnosis. | 1 2 3 4 5 | |
| ___ 18. The family has the right to withhold information from the cancer patient about his disease. | 1 2 3 4 5 | |
| ___ 19. Most cancer patients experience considerable pain. | 1 2 3 4 5 | |
| ___ 20. In general, I would be comfortable talking with a cancer patient about his diagnosis. | 1 2 3 4 5 | |

Developed by Marilee Donovan and the University of Pittsburgh School of Nursing - Oncology Nursing Program.

APPENDIX E. PROCEDURE FOR INSTRUMENT
PROCUREMENT

PROCEDURE FOR INSTRUMENT PROCUREMENT

The identification of attitudes held by nurses toward cancer and the cancer patient is considered a necessary step in changing the negativism surrounding this disease, however no standardized instrument currently exists for this purpose. One instrument, the Cancer Attitude Inventory (CAI) developed by Hoholock and Coulson (1968) at the Medical College of Virginia School of Nursing is in the process of being standardized. A second instrument, the Cancer Attitude Survey (CAS), developed by Donovan at the University of Pittsburgh School of Nursing in 1976 is also in the standardization process.

The investigator contacted Gail Hongladoram, RN, PhD, Acting Associate Director of Cancer Control at the Fred Hutchinson Cancer Research Center, University of Washington for assistance. The Hutchinson Center was engaged in an empirical investigation focusing on the identification of nurses' attitudes toward cancer patients and the disease entity cancer. The sponsoring agency for that three year study (1979-1982) was the National Cancer Institute and the measurement instruments utilized were the Cancer Nursing Outreach Program Affective Evaluation Tool (CNOP), the Cancer Attitude Survey (CAS) and the Cancer Attitude Inventory (CAI). The CNOP had been developed by nursing

researchers at the Hutchinson Cancer Center and was being piloted in the four states of Washington, Idaho, Montana and Alaska. It was being administered in conjunction with the CAS and the CAI. Their study design designated that the measurement instruments be employed prior to and subsequent to a 80 hour clinical and educational experience.

The Hutchinson Cancer Center research group granted the author the necessary clearance to use the instruments for dissertation purposes. However, four requests were made. These were: 1) Administer the tools to the total sample as each tool examines different concepts; 2) Educational achievement must include the two courses taught by the Oregon Comprehensive Cancer Program, entitled "Introduction to Biological and Physical Concepts Basic to Cancer Care" (48 hours) and "Nursing Care of the Cancer Patient" (56 hours); 3) The demographic tool and the CNOP are to be used exclusively for dissertation purposes; and 4) Share the study findings with the Hutchinson Cancer Research Center nursing research group.

Since the demographic and Cancer Nursing Outreach Program Affective Evaluation tools are in the process of being published, persons desiring information relative to these instruments can contact: Gail Hongladoram, R.N., PhD, 817 East Hamlin, Seattle, Washington, 98102.

APPENDIX F. GROUPING DESIGNATIONS
FOR SAMPLE

GROUPING DESIGNATIONS FOR SAMPLEGroup A

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).
2. In addition to the orientation statement the group was given basic instructions on how to answer likert-type format instruments (Appendix C).
3. The total group was located in the hospital.
4. The group had no clinical exposure.
5. The group had no educational achievement.

Group B

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).
2. In addition to the orientation statement the group was given basic instructions on how to answer likert-type format instruments (Appendix C).
3. The total group was located in the hospital.
4. The group had clinical exposure.
5. The group had no educational achievement.

Group C

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).
2. In addition to the orientation statement the

group was given basic instructions how to answer likert-type format instruments (Appendix C).

3. The total group was located in the hospital.
4. The group had no clinical exposure.
5. The group had educational achievement.

Group D

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).

2. In addition to the orientation statement, the group was given basic instructions on how to answer likert-type format instruments (Appendix C).

3. The total group was located in the hospital.
4. The group had clinical exposure.
5. The group had educational achievement.

Group E

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).

2. In addition to the orientation statement the group was given basic instructions on how to answer likert-type format instruments (Appendix C).

3. The total group was located in the community.
4. The group had no clinical exposure.
5. The group had no educational achievement.

Group F

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).
2. In addition to the orientation statement the group was given basic instructions on how to answer likert-type format instruments (Appendix C).
3. The total group was located in the community.
4. The group had clinical exposure.
5. The group had no educational achievement.

Group G

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).
2. In addition to the orientation statement the group was given basic instructions on how to answer likert-type format instruments (Appendix C).
3. The total group was located in the community.
4. The group had no clinical exposure.
5. The group had educational achievement.

Group H

1. The group was given a procedural orientation statement verbally or in written form (Appendix B).
2. In addition to the orientation statement the group was given basic instructions on how to answer likert-type format instruments (Appendix C).

3. The total group was located in the community.
4. The group had clinical exposure.
5. The group had educational achievement.

APPENDIX G. THREE-WAY ANALYSIS
OF VARIANCE (FIXED-DESIGN)
FINDINGS

THREE-WAY ANALYSIS OF VARIANCE
 FOR
 CANCER NURSING PROGRAM OUTREACH AFFECTIVE EVALUATION TOOL
 (CNOP)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F	Significance of F
<u>Main effects</u>					
Location of Nursing Practice	1	2888.277	2888.277	15.598	.001***
Clinical Exposure	1	239.647	239.647	1.294	.257
Educational Achievement	1	799.104	799.104	4.207	.042**
<u>Two-way Interactions</u>					
Location of Nursing Practice & Clinical Exposure	1	594.766	594.766	3.212	.075
Location of Practice & Educational Achievement	1	791.304	791.304	4.273	.040**
Clinical Exposure & Educational Achievement	1	14.487	14.487	.078	.780

THREE-WAY ANALYSIS OF VARIANCE
 FOR
 CANCER NURSING PROGRAM OUTREACH AFFECTIVE EVALUATION TOOL
 (continued)
 (CNOP)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F	Significance of F
<u>Three-Way Interactions</u>					
Location of practice & Clinical Exposure & Educational Achievement	1	17.350	17.350	.094	.760
Error	192	35553.352	185.174		
Total	199	40878.287	205.419		

N=200

*** p < .001; ** p .01

THREE-WAY ANALYSIS OF VARIANCE
FOR CANCER ATTITUDE SURVEY

(CAS)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F	Significance of F
<u>Main Effects</u>					
Location of Practice	1	365.069	365.069	10.769	.001***
Clinical Exposure	1	242.232	242.232	7.146	.008**
Educational Achieve-	1	136.734	136.734	4.034	.046*
<u>Two-Way Interactions</u>					
Location of Practice & Clinical Exposure	1	96.386	96.386	2.843	.093
Location of Practice & Educational Achieve- ment	1	42.611	42.611	1.257	.264
Clinical Exposure & Educational Achieve- ment	1	27.692	27.692	.817	.367

THREE-WAY ANALYSIS OF VARIANCE
FOR CANCER ATTITUDE SURVEY
(continued)

(CAS)

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F	Significance of F
<u>Three-Way Interactions</u>					
Location of Practice & Clinical Exposure & Educational Achievement	1	24.944	24.944	.736	.392
Error	192	6509.589	33.899		
Total	199	7444.256	37.408		

N=200

*** $p < .001$; ** $p < .01$; * $p < .05$

APPENDIX H. MEAN SCORES AND
STANDARD DEVIATIONS

CANCER NURSING OUTREACH PROGRAM
AFFECTIVE TOOL

MEAN SCORES AND
STANDARD DEVIATIONS

		C_1	C_2
		No Education- \bar{aI} Achievement	Educational Achievement
A_1 (Hospital)	B_1 (no clinical exposure)	\bar{G} : 167.96 \bar{X} : 160.85 SD: 11.31	\bar{G} : 167.96 \bar{X} : 168.73 SD: 13.16
	B_2 (Clinical Exposure)	\bar{G} : 167.96 \bar{X} : 159.54 SD: 13.04	\bar{G} : 167.96 \bar{X} : 167.52 SD: 13.49
	B_1 (No clinical exposure)	\bar{G} : 167.96 \bar{X} : 168.39 SD: 12.94	\bar{G} : 167.96 \bar{X} : 169.49 SD: 18.46
	B_2 (Clinical Exposure)	\bar{G} : 167.96 \bar{X} : 175.16 SD: 10.60	\bar{G} : 167.96 \bar{X} : 174.00 SD: 14.41

Potential Range of Score: 40-240

N=200

CANCER ATTITUDE SURVEY

MEAN SCORES AND
STANDARD DEVIATIONS

		C ₁	C ₂
		No Education- a1 Achievement	Educational Achievement
A ₁ (Hospital)	B ₁ (No clinical Exposure)	\bar{G} : 80.57 \bar{X} : 77.51 SD: 6.36	\bar{G} : 80.57 \bar{X} : 80.12 SD: 5.23
	B ₂ (Clinical Exposure)	\bar{G} : 80.57 \bar{X} : 78.36 SD: 3.94	\bar{G} : 80.57 \bar{X} : 80.90 SD: 6.05
A ₂ (Community)	B ₁ (No clinical exposure)	\bar{G} : 80.57 \bar{X} : 79.04 SD: 6.00	\bar{G} : 80.57 \bar{X} : 81.22 SD: 6.42
	B ₂ (Clinical exposure)	\bar{G} : 80.57 \bar{X} : 84.08 SD: 7.33	\bar{G} : 80.57 \bar{X} : 83.36 SD: 4.51

Potential Range of Scores: 20-100

N=200

APPENDIX I. HUTCHINSON CANCER
RESEARCH CENTER SAMPLE
MEAN SCORES AND STANDARD
DEVIATIONS

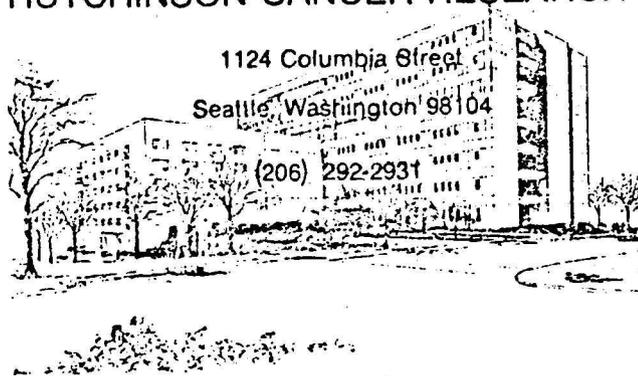
HUTCHINSON CANCER RESEARCH CENTER SAMPLE
 MEAN SCORES AND STANDARD DEVIATIONS
 FOR
 CANCER NURSING OUTREACH PROGRAM AFFECTIVE TOOL
 AND CANCER ATTITUDE SURVEY

TOOL	SAMPLE MEAN	STANDARD DEVIATION	SAMPLE SIZE
Cancer Nursing Outreach Program Affective Tool Range: 40-240	150.86	13.28	317
Cancer Attitude Survey Range: 20-100	80.06	6.46	319

APPENDIX J. PERMISSION LETTER FOR
INSTRUMENT USE

FRED HUTCHINSON CANCER RESEARCH CENTER

182



August 18, 1981

Ms. Karen Mischke
4500 S.W. 45th
Portland, Oregon 97221

Dear Ms. Mischke:

This morning during our telephone conversation I said I would send the program grid of our two-week eighty hour curriculum. It is important for you to make a determination that each of the topics we cover is included in the first or second segment of the ONCEP curriculum.

After I receive your formal written request to use the CNOP (Cancer Nursing Outreach Program) affective instrument, I will take your request to the program faculty and a determination will be made about having others use the tool. The consultation you and I had with Dr. Frances Lewis was helpful for both of us and I will share her comments with the CNOP faculty.

I understand your sense of urgency and will do everything I can to expedite this process.

Sincerely,

C
Redacted for Privacy

Gail Hongladarom, R.N., Ph.D.
Acting Associate Director,
Cancer Control

GH:lw

Encl: Program Grid

Cancer Nursing Outreach Program

Fred Hutchinson Cancer Research Center

1424 Columbia Street
Seattle, Washington 98104

September 21, 1981

Karen Mischke, R.N., M.N.
4500 S.W. 45th
Portland, Oregon 97221

Dear Karen:

Enclosed are the instruments which you requested. In the Cancer Nursing Outreach Program we give the participants the three attitude scales and the demographic scale pre-program. Immediately after the two week program a post course evaluation is given, which includes the three attitude scales. For use of the CNOP affective evaluation tool we request that you use all of the questions. We have found that each of the three tools contributes new information, so it would be best to use all three. Secondly, we prefer that the demographic tool and the CNOP tool be used exclusively for the purposes of your dissertation.

Also enclosed are the reliability results for a sample of 253. The alpha reliabilities for CNOP are reasonable. Although the alpha isn't extremely high, this is to be expected. The scale knowingly samples items from multiple attitudinal content domains. In other words, the scale is known to be factorially heterogeneous. As soon as analysis is completed on an independent test-retest sample, there will be validity available.

If you have further questions on the development or nature of the tool, please do not hesitate to contact me. Fran Lewis is the best person to call for questions relating to the statistical analysis of the data.

We look forward to hearing from you about the progress you make with your dissertation. We appreciate your willingness to share your research findings as well as your raw data.

I wish you the best in your endeavors.

Sincerely,
Redacted for Privacy

Karen Landenburger, R.N., M.N.
Program Coordinator

KL:jg

Enclosures



UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

COMMUNITY HEALTH NURSING
SCHOOL OF NURSING

Area Code 503 225-7709

Portland, Oregon 97201

October 30, 1981

Karen Landenburger, R.N., M.N.
Program Coordinator
Cancer Nursing Outreach Program
Fred Hutchinson Cancer Research Center
1124 Columbia Street
Seattle, Washington 98104

Dear Karen:

Thank you for sharing the Cancer Attitude instruments with me. I appreciate the opportunity of comparing my findings with the reliability and validity data from your research endeavor.

After reading your letter, I would like to clarify some of the guidelines that you recommended:

1. It would be best to administer the three tools together since each tool measures something different.
2. The demographic tool and the Cancer Nursing Outreach Program Affective tool should only be used for dissertation purposes. This negates the possibility of publishing information relative to the description of that particular tool.

The demographic tool addresses many of the variables that are of particular interest to me. However, since I am interested in maintaining the individuals' anonymity, I would like to make questions 1, 2 and part B of 9 optional. If this is going to alter your use of my findings, please let me know.

Hopefully Karen, I will be able to administer the tools toward the end of this term. The populations have been identified with appropriate approval obtained. I am waiting for the "go ahead" from my doctoral committee.

Thank you again for your assistance.

Sincerely,

Karen Mischke, R.N., M.N.
Assistant Professor
Community Health Care Systems

KM/at
103081



UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

August 17, 1981

COMMUNITY HEALTH NURSING
SCHOOL OF NURSING

Area Code 503 225-7709

Portland, Oregon 97201

Gail Hongladoram, R.N., Ph.D.
Project Director
Cancer Nursing Outreach Program
Fred Hutchinson Cancer Research Center
1124 Columbia Street
Seattle, Washington 98104

Dear Dr. Hongladoram:

Thank you for your supportive encouragement and willingness to consider sharing the recently developed Cancer Nursing Outreach Program (CNOP) tool with me. I am cognizant that this scale, related to nursing attitudes toward cancer and the cancer patient, has not been given to other researchers nor has it been described in the literature. I appreciate your considering my formal request to use it as an instrument for my dissertation. I am hopeful that it will be applicable for my study.

As I previously mentioned, I am a Ph.D. candidate in Adult Education at Oregon State University and a faculty member at the Oregon Health Sciences University School of Nursing. My doctoral dissertation commitment encompasses the attitudes toward cancer and the cancer patient that are held by oncology and community nurses.

Briefly, the experimental design of a 2-way ANOVA Fixed Model is as follows: (This is tentatively based on applicability of your tool to my study).

1. Variables for the study:
 - a. Dependent variables: Each of the items on the CNOP
 - b. Independent variables:
 1. Clinical exposure to cancer patients minimal and maximal
 2. Formalized educational exposure to cancer courses conducted by the Oregon Nurses Cancer Education Program (ONCEP)
Charlotte Wright, Director.
(haves and have not's)

-2-

2. Sample for the study:

- a. Random selection of 64 nurses working in the community. These will be Community Health Nurses and Industrial Nurses.
- b. Random selection of 64 nurses working as oncology nurses who have completed Unit I and Unit II (96 hours) of a formalized cancer educational program sponsored by the ONCEP. (See enclosures for course objectives for Unit I and Unit II).

3. Time frames for the study:

- a. Complete data gathering January 1, 1982
- b. Defense and completion Fall term, 1982

I am aware that your ongoing research endeavor is being funded by a grant from the National Cancer Institute and that this NCI support needs to be acknowledged. If your tool is appropriate for my study and if you agree to letting me use it, my dissertation would reflect the contributions of both the NCI and the University of Washington.

I would be pleased to share my research findings as well as any "raw data" with you. If you need additional clarification as to my research purposes, please let me know. Thank you for considering my request to use the CNOP instrument. I wish you well in your continued nursing research adventure, Dr. Hongladoram.

Sincerely,

Redacted for Privacy

Karen Mischke, R.N., M.N.
Assistant Professor
Community Health Care Systems

KM/at
081781

Enclosures