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PROFESSIONAL NURSE CARING AS PROFESSIONAL NURSE INTERVENTIONS WITH CANCER PATIENTS AND THEIR FAMILIES

By

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ABSTRACT

PROFESSIONAL NURSE CARING AS PROFESSIONAL NURSE INTERVENTIONS WITH CANCER PATIENTS AND THEIR FAMILIES

By

Roberta Louise Corbat

A professional nurse caring model of nursing based on the sub-concepts of being there, support, empathy, communication, time/helping and reciprocity was investigated. Intercoder statistics were computed between the researcher and five professional oncology nurses in an attempt to operationalize a professional nurse caring model of nursing as professional nurse interventions with cancer patients and their families. The model was only partially supported due to lack of intercoder agreement. Professional nurse interventions used with cancer patients and their families were also investigated to determine how they were associated with the same model sub-concepts. Results indicated professional nurses caring for cancer patients and their families used professional nurse interventions associated with being their most often, followed by interventions associated with support, empathy, communication, and time/helping. Further nursing research is needed to more explicitly define professional nurse caring, to describe in more explicit terms exactly what it is nurses do with patients and families, and to document patient outcomes resulting from professional nurse interventions with cancer patients and their families.

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INTRODUCTION

Nursing has traditionally been viewed as a caring profession. What is it that nurses do that make their practice caring? It is important that nurses attempt to answer this question so that the health care system and society as a whole will begin to value professional nurse caring and professional nurses' caring interventions.

The last few decades have brought great changes in the "how" and "where" of health care delivery, especially within the practice of nursing. Advances in technology have changed how professional nurses take care of patients, but the use of technology does not have to mean a change in the way professional nurses care about or for patients (Locsin, 1995, Neighbors & Eldred, 1993). The institution of diagnostic related groups has taken the "where" of nursing care away from the emphasis on the acute care setting, and more frequently into the outpatient setting, and even directly into patients' homes (Kristjanson & Ashcroft, 1994, Longman, Atwood, Sherman, Benedict & Shang, 1992).

Along with the advances in medical technology, has come the threat that technological care will take precedence over personalized or humanistic care. Many nurses today have, out of necessity, become competent and skilled technicians

who use machines to deliver much of their nursing care. The value of nursing care must not be based on technical expertise alone. Mechanical technology can be an indispensable part of nursing care, and competence can be seen as an expression of caring (Jones & Alexander, 1993, Locsin, 1995). However, nurses do more than just monitor and maintain equipment. Expert nursing practice includes skilled nursing interventions and clinical judgment skills. The skilled practice of the expert professional nurse is the applied skill of technical as well as supportive psychosocial nursing in actual clinical situations (Benner, 1984).

For many patients the issue is care not cure, and caring has long been identified by nurses as the essence and central focus of nursing (Watson, 1979; Gaut, 1984; Wolf, 1986; Morse, Solberg, Neander, Bottorff & Johnson, 1990; Wolf, Giardino, Osborne & Ambrose, 1994; Kyle, 1995; Leininger, 1981). It has even been proposed that caring formulates more than nursing's essence: that professional nurse caring equals or is nursing (Green-Hernandez, 1991a). Professional nurses use caring actions to attend to patients, to support their independent functioning, and to ease their pain and discomfort (Davies & Oberle, 1989).

The purpose of this study is to describe and test a professional nurse caring model of nursing as operationalized by professional nurse interventions with cancer patients and their families. The questions to be

answered by this study are: "How do professional nurse interventions with cancer patients and their families operationalize a professional nurse caring model of nursing?" and "How are the professional nurse interventions used by professional nurses with cancer patients and their families associated with a professional nurse caring model of nursing?"

LITERATURE REVIEW

Caring as a Concept

Caring means that persons, events, and things matter. Caring includes romantic love, parental love, caring about one's house, one's pet, or one's work. Caring sets up the condition that something or someone outside the person matters and thus creates concerns that motivate and direct people to act (Benner & Wrubel, 1989). For professional nurses, caring means that patients matter and it is caring that motivates and directs the use of professional nurse interventions.

Throughout current nursing literature, caring is summarily defined as intentional actions that convey physical care and emotional concern, and that promote a sense of safeness and security in another (Larson & Ferketich, 1993). It is a way of relating to a valued other toward whom one feels a personal sense of commitment and responsibility (Swanson, 1991).

A review of nursing literature reveals five categories of caring: caring as a human trait, caring as a

interpersonal relationship, caring as a moral imperative or ideal, caring as an affect, and caring as a therapeutic intervention (Morse, Solberg, Neander, Bottorff & Johnson, 1990). Caring as a therapeutic intervention has been studied by several nurse authors who have attempted to link caring to the work of nurses (Brown, 1986; Poulin, 1987; Gaut, 1984; Larson, 1987; Mayer, 1986; Peterson, 1985; Cronin & Harrison, 1988; Wolf, 1986; Green-Hernandez, 1991a; Wolf, Giardino, Osborne & Ambrose, 1994).

Nurse caring behaviors or actions have been described as both instrumental and expressive activities (Watson, 1979). Instrumental activities are seen as physical-oriented helping actions and cognitive-oriented helping actions. These focus more on physical and treatment needs of patients; the doing for, doing tasks, and teaching related activities (Gooding, Sloan & Gagnon, 1993). Expressive activities are defined as those establishing relationships that are characterized by trust, faith, hope, sensitivity, empathy, touch, warmth, and genuineness, and those offering support that may include surveillance and comfort. This expressive dimension of nurse caring behaviors alludes to the more psychosocial oriented behaviors involving emotional support, listening, and counseling (Watson, 1979; Gooding, Sloan & Gagnon, 1993). These types of caring activities often mean more to cancer patients and their families because for them cure is not a certainty, but care is always an option.

Caring for Cancer Patients and their Families

The incidence of cancer and the deaths resulting from cancer, along with the financial costs of cancer are rising. Cancer accounts for about 10% of the total cost of disease in the United States. The National Cancer Institute estimates the overall costs for cancer at $104 billion. In Michigan alone the estimated new cases of cancer have risen from 37,000 in 1990 to 50,600 for 1996. The estimated number of deaths in Michigan from cancer has risen from 18,600 in 1990 to 20,600 for 1996. It is predicted that one in every four deaths in the United States in 1996 will be due to cancer (American Cancer Society, 1996).

Cancer has many biopsychosocial effects on patients and their families. Cancer patients and their families provide abundant opportunity for professional nurses to practice caring because these patients and families need comprehensive supportive care. Because of nursing's holistic view of persons and health, professional nurses most often play the dominant role in the care of cancer patients and their families (Davies & Oberle, 1990).

A review of the nursing literature on cancer identified four major dimensions of the patient and family cancer experience: developmental stage of the family, cancer illness trajectory, family responses to cancer, and health care provider behaviors. Research that attempted to identify specific behaviors perceived as helpful to families was discussed in the literature on health care provider

behaviors. Also studied were means of communication with patients and their families and various care approaches directed at families of cancer patients during the terminal phase of illness (Kristjanson & Ashcroft, 1994).

Many of these studies indicated that actions providing patient comfort and direct patient care, and supportive nursing actions such as being there, being available, spending time, sharing personal experiences, telling the truth, using humor, relieving pain, teaching and explaining, and comforting touch were most valued by cancer patients and their families, unlike the general patient studies on caring (Kristjanson, 1986; Hull, 1989, 1991; Stiles, 1990; Longman, Atwood, Sherman, Benedict & Shang, 1992; Laizner, Yost, Barg & McCorkle, 1993). Studies concerned with communication with cancer patients and families for the purpose of support indicated that both patients and family members felt they received little support, and could have benefited from more supportive communication and counseling (Northouse & Swain, 1987; Northouse, 1985; Laizner, Yost, Barg & McCorkle, 1993).

Because patients and families cannot change their situations, the supportive role of the nurse becomes more crucial (Lindgren, 1990). Nurses use their understanding and expertise to create an environment of caring where cancer patients and their families can explore concerns and feelings so they can make decisions about how they wish to

respond and/or adapt to their individual circumstances (Reimer, Davies & Martens, 1991).

Support is central to caring for patients with advanced cancer and their families. Little research has been conducted to try and identify successful nursing interventions or to outline the knowledge and skills required by the nurse giving supportive care to patients in palliative care settings.

More cancer patients are being cared for at home. The impact of cancer on the patient and the family is becoming an increasingly important issue. Caring professional nurse interventions are critical to helping cancer patients and families cope with their needs, concerns, and stress because nurses are the ones that assess and intervene with patients and their families in their homes on a regular basis (Kristjanson & Ashcroft, 1994).

CONCEPTUAL FRAMEWORK

Professional Nurse Caring

Professional nurse caring has been proposed as a conceptual model for nursing. This model connects direct caring actions in nursing to an intentional caring process (Green-Hernandez, 1991b). The concept of professional nurse caring can be seen as an extension of the writings of Mayeroff (1971), Watson (1979), and Gaut (1984).

Professional nurse caring enfolds a philosophical view of natural caring. Natural caring is a human activity and process where one assists another in growth and self

actualization which in turn helps the carer to grow. Essential to the natural caring process are devotion, patience, honesty, trust, humility, and hope. The natural caring process bestows self meaning on the carer, thereby giving meaning to one's life (Mayeroff, 1971). The natural caring process is the basis for short term caring relationships such as the nurse patient relationship, and is central to a caring professional nursing practice.

Caring in nursing is a therapeutic interpersonal process that emphasizes the psychological, emotional, and spiritual dimensions of care. Caring in nursing is a process that uses caring methods to bring about health which is positive. Nursing interventions reflecting this process of human caring are presented in the context of a caring relationship to promote the patient's healing. A caring relationship in nursing incorporates the holistic view of nursing, and is one in which the whole person (patient) is held in high regard by another (nurse) (Watson, 1979, 1988).

Professional nurse caring as a model of nursing evolved from a caring-in-action model based on awareness, regard, and respect of persons. Caring as an intentional human action implies respect for persons and serves as the underlying principle for all caring transactions. Caring occurs through activities and situations that are purposefully organized around the concept of caring (Gaut, 1984).

The primary focus of the professional nurse caring model is direct, intentional, and therapeutic involvement with the patient. Within the scope of this model, all nursing therapeutics encompass intentional caring action. The model of professional nurse caring is the conceptualization of seven sub-concepts: being there, support, empathy, communication, time, helping, and reciprocity (Green-Hernandez, 1991b).

Conceptual Definitions

For the purpose of this paper the following definitions based on the Professional Nurse Caring model (Green-Hernandez, 1991a, 1991b) will be used.

Being there: In order for the patients and their families to feel physically and emotionally safe it is necessary to feel that others are there for them. Professional nurse caring requires the nurse to both verbally state and nonverbally demonstrate being there for the patient and the family. This means physically being there to see the patient, as well as providing a sense of safeness and security through continuous assessment and monitoring of the patient's and family's situation and management of identified problems.

Support: Professional nurse caring supports patients and families by providing nurturance, health information and access, and advocacy. Advocacy of another's views regardless of whether the nurse agrees or not is considered the most important factor of support. A caring relationship

between the nurse and patient or family requires empathy on the part of the nurse.

Empathy: Similar to advocacy, empathy means putting oneself in another's shoes without making judgments. Empathy means understanding and accepting another's feelings or state of mind through emotional support or counseling.

Communication: Within the model, professional nurse caring is transmitted through interpersonal communication. This is most often done through the direct verbal communication and feedback of teaching. Interpersonal communication also includes therapeutic counseling and crisis intervention. Communication can also include caring touch not associated with nursing tasks.

Time/Helping: Professional nurse caring relies on the concepts of time and helping when doing things for and with patients. In order to help, one must take time. Professional nurse caring means the nurse takes the time to become involved so that he/she can act in an intentionally caring manner that will help the patient or family. Without the perception that there is time to provide help, nursing actions lose their caring aspect and nursing practice is reduced to the delivery of technical tasks. Taking time to perform skilled nursing tasks with competence is an indication of caring by confirming that the patient or family matters.

Reciprocity: To maintain one's professional nurse caring capacity, the nurse must feel that caring is

reciprocated. Client reciprocity may not always be realized, which may cause the nurse to feel that his/her actions do not matter. Experiences with colleagues such as respect for one another can help maintain the ability to care.

Professional Nurse Caring as Intentional Actions

Green-Hernandez developed her model of professional nurse caring as a basis for a caring professional nursing practice. Professional nursing is described as both the process and the action of professional nurse caring.

Three conditions must be met before professional nurse caring can take place. First, the nurse must learn how best to transmit caring. This is accomplished through formal nursing education which builds on the nurse's natural caring attributes. The student nurse learns how to use the nursing process of assessment, planning, implementation, and evaluation to deliver care that meets individual patient and family needs.

Second, as the nurse learns and becomes technically competent in the use of the nursing process, the nurse begins to feel empowered. Achieving technical competence leads to feeling competent.

Third, this learning and technical competence results in professional confidence that validates the nurse's skills and enables the nurse to work with patients and families in a professional caring way. The clinical judgments the caring professional nurse makes through use of the nursing

process and the subsequent direct nursing actions provided, are direct reflections of the professional nurse caring process based on being there, support, empathy, communication, time/helping, and reciprocity (Green-Hernandez, 1991b).

Nursing's professional intentional caring actions are professionally learned through formal education in nursing as well as through professional role modeling and experience. This education and experience is what makes professional nurse caring different from natural caring. Professional nurse caring is a further development of the nurse's natural caring capacities (Green-Hernandez, 1991b).

Professional nurse caring is learned and transmitted with therapeutic intent as a purposeful nursing intervention. With continued education and time, the expert nurse moves beyond reliance on abstract principles to the use of past concrete experiences. Professional nurse caring and expertise demands that the nurse become an involved performer who is actively engaged in the situation, and connects understanding of the situation to an appropriate action (Benner, 1984).

Summarily, because of specific nursing education and experience, an expert professional nurse has a deeper understanding of what constitutes wellness, a wider view of person, and a broader scope of caring practices than someone who has not received a formal nursing education or a novice nurse that has not yet reached an expert level of clinical

competence (Swanson, 1993). An expert professional nurse intentionally uses professional caring as the therapeutic means for meeting patients' and families' assessed needs in order to attain health goals. The expert professional nurse operationalizes professional nurse caring as professional nurse interventions arrived at through use of the nursing process. The expert professional nurse involves the patient and the family in using the nursing process to assess, plan, implement, and evaluate care directed toward meeting identified goals.

Nursing Process

Professional nurse caring actions are not just the products of routine, tradition, or accidental occurrences. Professional nursing actions are the informed caring for the well-being of others (Swanson, 1993). The ability to be caring is influenced by previous thoughts, attitudes, experiences, and involvement with caring. The caring interventions professional nurses use to promote the health and well-being of patients are an extension of natural caring. Nursing interventions are the result of a learned process of actions. Professional nurse practiced caring is knowledge constructed of not only personal experiences in life, but also from experiences in nursing education and practice (Knowlden, 1991).

Professional nurses use caring practices that are specific, organized activities related to caring for and about others. Concern for others guides caregiving. This

concern is what enables the professional nurse to use the nursing process to discern problems, to recognize possible solutions, and to implement those solutions. Professional nurse caring makes the nurse notice which interventions are helping and which interventions are not (Benner & Wrubel, 1989).

Professional caring relationships, such as nurse-patient relationships, imply a responsibility on the part of the nurse as the professional, to use knowledge and skills to help the patient (Pollack-Latham, 1991). Professional nurse caring is a combination of knowledge and skills from many disciplines. Therapeutic interventions of professional nurses are grounded in knowledge from nursing, related sciences and humanities, and personal insight gained from clinical experiences (Swanson, 1991).

The formal process of nursing education facilitates professional caring by emphasizing interpersonal communication methods, clinical experience, and methods to understand care recipient needs. There is also an ethical component to nursing education that enables professional nurses to care for many types of patients and families who may not share their own personal values and beliefs (Pollack-Latham, 1991). Formal nursing education includes content on physical, cultural, spiritual, and emotional responses to conditions of wellness and illness (Swanson, 1991).

There is no one activity of nursing that is `the' caring activity of nursing practice, rather it is a set of actions or process. The caring activity of nursing is actualized through use of the nursing process. The nursing process sets the caring practice of nursing in motion. The depth and breadth of knowledge of the nurse directly effects the suitability and relevance of the care given (Carpenito, 1989).

The clinical judgment necessary for implementation of the nursing process requires mastery of theory, knowledge, and research relevant to specific nursing diagnoses (McLane & Kim, 1989). Clinical judgment based on a caring nursing process requires the elements of being there, support, empathy, communication, time/helping, and reciprocity. Clinical judgment has been identified by the American Association of Colleges of Nursing as an essential component of professional nursing education (Gordon, 1987). The fact that the nursing process is included in most nurse practice acts and in the conceptual framework of most nursing curricula further supports the idea that the nursing process is central to professional nursing practice. This also would support the idea that professional nurse caring as professional nurse interventions arrived at through use of the nursing process is also central to professional nursing practice.

The nursing process is a problem identification and problem solving approach to care. It is the way in which a

helping relationship characterized by knowledge, reason, and caring is established (Gordon, 1987). The nursing process is a continuous ongoing process of assessment, diagnosis, planning, implementation, and evaluation.

Caring occurs and is understood within the context of each situation (Benner & Wrubel, 1989). It is the ability of the nurse to presence oneself with a patient or family in a way that acknowledges the uniqueness of each individual and each situation. This author proposes that professional nurse interventions arrived at through the formally learned process of assessment and diagnosis are professional nurse caring actions because they are undertaken by professional nurses to help uniquely different patients and families move from a present state to the state described in the projected outcomes. Nursing interventions are specific caring actions performed in response to specific situations, because of concern for those involved.

Patient care is the central focus of nursing. Caring is a science and an art. The art of professional nurse caring involves the application of clinical judgment, nursing science, intuition, empathy, and technical skills (Gordon, 1987). Caring for, about, and with patients are the elements of clinical nursing practice that identify it as a caring or helping profession operationalized through the nursing process.

Professional nursing interventions are those actions that professional nurses do to assist patients' status or

behavior to move toward a desired outcome. Nursing interventions are autonomous caring actions based on a scientific rationale that is designed to benefit the patient in a predicted way related to the nursing diagnoses and the stated goals (Bulechek, 1989). Interventions are dependent on choices, capabilities, and resources of the patient and the creativity, skill and knowledge of the nurse, and on research findings (Gordon, 1097).

Research on caring has linked professional nurses' interventions to expert levels of professional caring in nurses (Pollack-Latham, 1991; Benner, 1984; Benner & Wrubel, 1989). This study will test a professional nurse caring model of nursing and answer the questions: "How do professional nurse interventions with cancer patients and their families operationalize a professional nurse caring model of nursing?" and "How are the professional nurse interventions used by professional nurses with cancer patients and their families associated with a professional nurse caring model of nursing?"

METHODS

Research Design

The conceptual framework for this study is a professional nurse caring model of nursing based on the sub-concepts of being there, support, empathy, communication, time/helping, and reciprocity. The original study, however, implemented a nursing intervention model of nursing based on continuing and supportive care for cancer patients and their

families. Interventions were categorized under assessment/monitoring, counsel/support, management/nursing procedures and skills, referrals, teaching, visits, and providing written information to patients and families related to cancer.

An exploratory descriptive design was used in this study. To answer the first research question "How do professional nurse interventions with cancer patients and their families operationalize a professional nurse caring model of nursing?", new data concerning professional nurse interventions with cancer patients and their families was collected from professional nurses actually working with cancer patients and their families. This data was used to try and test and support a professional nurse caring model of nursing.

A secondary analysis of previously collected data that includes specific professional nurse interventions used with cancer patients and their families was undertaken to answer the second question "How are the professional nurse interventions used with cancer patients and their families associated with a professional nurse caring model of nursing?"

Sample

The population for this study consists of all lymphoma patients and their families participating in the Rural Partnership Link for Cancer Care from 1993 to January 1995. The original research project funded by the National Cancer

Institute, grant #R01 CA56338, was a collaboration between the Michigan State University (MSU) College of Nursing and Human Medicine, Department of Family Practice, The Cancer Center of MSU, MSU/Kalamazoo Center for Medical Studies, and the West Michigan Cancer Center. The patient care interventions for the original study were designed to supplement and coordinate care by focusing on specific cancer related needs.

For this study lymphoma patients are defined as all patients taking part in the Rural Partnership Link for Cancer Care from 1993 to January 1995 with a diagnosis of new or recurrent lymphoma. The term lymphoma is defined as a heterogeneous group of cancers that arise from the lymphoreticular system. Family is defined as anyone involved in the direct care of the lymphoma patient on a regular basis but not in a professional role.

Lymphomas are the seventh most common cancer on the United States. Because of the younger average age of lymphoma patients, they account for more years of potential life lost than many of the more common adult cancers. Medical treatment most commonly consists of chemotherapy, radiation, or a combination of both. Clinical staging of the disease was from Stage I to Stage IV according to the Ann Arbor staging system (Eyre & Farver, 1991).

The sample population for this, as well as the original study, was a convenience sample because all those participating were recruited through referrals from

oncologists, primary care physicians, community agencies, families, or self. Only lymphoma patients and their families were used for this study out of the original population in an effort to keep the interventions to be examined at a manageable number. Using just lymphoma patients and their families results in a more homogeneous population and reduces the risk of confounding due to varying patient needs associated with different forms of cancer. However, using only lymphoma patients and their families also limits the ability to generalize findings to the larger total cancer population (Brink & Wood, 1988).

Validity, Reliability, and Limitations

A secondary analysis is limited because the data has already been collected and also because the data was originally collected for a different purpose. This results in limitations of the data for answering the research questions in this study. Taking this into consideration, a secondary analysis is still an expedient means, especially for a novice researcher, to move from the research question to exploring the variables because the sample has already been obtained and the data gathered (Polit & Hungler, 1991).

There are no previously used instruments on which to base validity or reliability estimates for this study. The data used for this study are the results of intercoding of the professional nurse interventions designed for use with cancer patients and their families by professional nurses and the results of professional nurses' use of the nursing

process as evidenced by the professional nurse interventions actually used with cancer patients and their families.

For the original study professional nurses were located in rural clinics in rural hospitals. The medical record and treatment plan for each patient was obtained and the nurse completed an intake assessment, a complete history and physical if necessary, and implemented the intervention process using a computerized system to document care (Given & White, 1994). For the purpose of this study, it is assumed, by virtue of their license and education, that each professional nurse participating in this study is an expert in assessing, diagnosing, planning, implementing, and evaluating, actual and potential health problems of patients and their families, that professional nurses are capable to treat.

Data Collection and Data Analysis

Nursing interventions for the original study were categorized under the headings of assessment/monitoring, counsel/support, management, nurse administered procedures, referrals, skills, teaching, visits, and access informatics. Interventions were directed at improving patient and family knowledge, symptom management, providing psychological support, monitoring disease and treatment effectiveness, implementing the medical plan of care, mobilizing and coordinating community services, maximizing patient and family resources, and integration of all cancer care services (Given & White, 1994).

The following is a list of possible professional nurse interventions with cancer patients and their families, numbered 1 to 205, that was compiled for use in the original study:

1. Consult-appointment changing
2. Communicate with health provider: nurse, oncologist, pharmacist, physician

Assessment/monitoring:
3. RE acid base/fluid electrolyte
4. RE cardiac care/PVC/rate/VS
5. RE complications
6. RE disease progression/recurrence
7. RE family
8. RE follow up
9. RE infection
10. RE knowledge/understanding
11. RE neuro
12. RE nutrition
13. RE oral health
14. RE recurrence
15. RE safety
16. RE skin integrity
17. RE symptom management
18. RE tests/lab values
19. RE treatment tolerance
20. RE vital signs

Counsel/support:
21. Advocate: health system guidance
22. Assist with problem solving
23. Conduct cognitive assessment
24. Conduct family assessment
25. Conduct family conference
26. Discuss problem of care with patient
27. Mobilize resources
28. RE active listening
29. RE anger
30. RE anger control assistance
31. RE anticipatory guidance
32. RE anxiety
33. RE anxiety reduction
34. RE body image enhancement
35. RE caregiver support
36. RE communication enhancement
37. RE coping enhancement/meditation
38. RE crisis intervention
39. RE death/grief
40. RE decisional conflict

41. RE depression
42. RE distraction
43. RE ego enhancement
44. RE family mobilization
45. RE family roles
46. RE family caregiving
47. RE financial assistance
48. RE grieving
49. RE hope instillation
50. RE humor
51. RE individual
52. RE lifestyle change
53. RE meditation
54. RE music therapy
55. RE mutual goal setting
56. RE reframing/ cognitive restriction
57. RE respite care
58. RE role enhancement
59. RE sexual counseling
60. RE sibling support
61. RE support group

Management:
62. Acid base
63. Alter medications
64. Artificial airway
65. Chemotherapy
66. Code:advanced directive
67. Constipation/impaction
68. Coordination of care
69. Decision making support
70. Diarrhea
71. Dying
72. Energy
73. Environment:comfort
74. Environment:safety
75. Heat/cold application for pain control
76. Home maintenance assistance
77. Hypoglycemia management
78. Infection control
79. Prescribe OTC meds
80. Weight gain
81. Weight loss
82. Smoking cessation

Procedure(nurse administered):
83. Draw labs
84. Dressing change
85. Ear care
86. Eye care
87. Fistula
88. Heat/cold therapy
89. Incision care/wound

90. IV catheter care
91. IV catheter flush
92. IV insertion/therapy
93. Massage/back rub
94. Medication administration
95. Order laboratory test
96. Other specimen
97. Touch
98. Trach care
99. Tube care(ie. gastric tube)
100. Urinary catheterization
101. Urine specimens
102. Venous access
103. Vital sign monitoring

Referral:
104. American Cancer Society
105. Chore service
106. Church group(informal)
107. Counselor
108. Durable med equipment
109. ER-urgent care
110. Family mobilization
111. Family practice/internist
112. Friend(informal)
113. Home nursing
114. Hospice
115. Insurance counselor
116. Meal service
117. Neighbor(informal)
118. Oncologist
119. Priest/minister
120. Prosthetic(breast)
121. Psychologist
122. PT/OT
123. Reach to recovery
124. Respite
125. Social worker
126. Support group
127. Transportation
128. VNS/skilled home care
129. Wigs
130. Nutritionist

Skill:
131. Care of NG tubes
132. Constipation prevention
133. Crutches/walker
134. Dressing change
135. Enemas
136. Feeding tubes
137. Fistula care
138. Fluids administration

139. Foley catheter care
140. Guided imagery
141. Incision site care
142. Incontinence
143. Infusion pumps
144. IV catheter care/PIC
145. Med administration-topical
146. Med administration-IM injection
147. Med administration-IV
148. Med administration-PO
149. Med administration-PR
150. Med administration-SQ
151. Mouth care
152. Oxygen administration
153. Positioning
154. Range of motion exercises
155. Respirator care
156. Skin care/decubiti
157. Stoma/appliance
158. Suctioning
159. Transfer techniques
160. Tube feeding administration
161. Urine/stool testing

Teach:
162. Counsel RE hospice
163. Give educational material
164. Bibliotherapy
165. Bleeding precautions/instruction
166. Bleeding reduction
167. Bowel management
168. Diet/nutrition
169. Discharge planning
170. Disease process diagnosis
171. Exercise
172. Exercise therapy:ambulation
173. Guided imagery
174. Hair care/alopecia
175. Health system
176. Humor
177. Infection control/prevention
178. Infection protection
179. Medications
180. Memory training
181. Music therapy
182. Oral care
183. Ostomy care
184. Patient controlled analgesia(PCA)assistance
185. RE medical plan of care
186. Prevention of complications
187. Progressive muscle relaxation
188. Pruritis
189. Relaxation techniques

190. Self care(bathing,feeding,dressing,toileting)
191. Self monitoring
192. Smoking cessation
193. Symptom control
194. Treatment
195. Treatment chemotherapy
196. Treatment radiation
197. Treatment radiation external beam
198. Treatment radiation internal
199. Treatment surgery
200. Urgent care

Visit:
201. Clinic
202. Home
203. Hospice
204. Hospital
205. Access informatics

To answer the first question, "How do professional nurse interventions with cancer patients and their families operationalize a professional nurse caring model of nursing?", the researcher, along with the five professional nurses involved in the actual diagnosing, intervening, and assessing of the patients taking part in the original study, categorized the 205 possible professional nurse interventions according to the sub-concepts of the professional nurse caring model of nursing as expressed by Green-Hernandez (1991a, 1991b) and defined by the researcher earlier. It can be inferred that the five professional nurses were expected to participate in this study as part of their roles and involvement in the original study, and in that sense, did not have a choice to refuse.

Interventions were grouped initially by the researcher under the categories of being there, support, empathy, communication, time/helping, and reciprocity. Each

intervention was coded under only one sub-concept according to the central idea expressed by the conceptual definition of each category. Then each of the five professional nurses participating in the original study was asked to code the interventions in the same manner. Intercoder agreement was then examined in an attempt to test the premise that professional nurse interventions with cancer patients and their families do operationalize a professional nurse caring model of nursing.

Intercoder reliability is the degree to which two or more coders, operating independently, assign the same codes to the variables being coded (Polit & Hungler, 1991). To correct for chance agreement, Cohen's kappa was computed between the nurses individually and between the researcher and the five other professional nurses as a whole. Kappa greater than .70 would be considered an acceptable level of intercoder agreement.

It was predetermined that at least four of the six nurses had to be in agreement in order to categorize an intervention under a specific sub-concept. Interventions that had less than four agreements were not categorized . These interventions were dropped from the list and the kappa statistic recomputed.

To answer the second question, "How are the professional nurse interventions used with cancer patients and their families associated with a professional nurse caring model of nursing?", the professional nurse

interventions used by the professional nurses with lymphoma patients and their families were identified through use of the computer system designed for the original study. Patients were listed by patient identification numbers along with their nursing diagnoses and all professional nurse interventions used by the professional nurses for their care. The total number of interventions used and the frequency with which each specific intervention was used was computed. The interventions used were then assigned to a sub-concept category according to the intercoding results. Interventions used that were unable to be categorized, were listed as "not categorized".

Data collection also included demographic data for each sample subject, some background information on the professional nurses participating in the study, as well as comments from the professional nurses regarding the intercoding assignment.

RESULTS AND DATA ANALYSIS

Intercoding Results and Analysis

Results of the intervention coding are listed in Appendix C. The researcher is nurse six. The remaining nurses were arbitrarily assigned the numbers one through five as their responses were returned.

All five nurses asked to participate in this study returned the sorted intervention cards as requested. All five nurses returned the short follow up survey that was sent to them after performing the coding task. The nurses

were asked to indicate their total nursing experience, their oncology nursing experience and oncology credentials, their education level, and whether or not they found the coding assignment difficult or easy and why. Table 1 is a summary of this background information as well as background information on the researcher. Information about the researcher is listed last. Of the remaining five nurses that participated, it is not known what demographic information applies to which nurse. Total nursing experience ranged from six years to 26 years. Total oncology nursing experience ranged from six years to 19 years. The five nurses from the original study that participated in this study were all experienced oncology nurses and could be considered experts in the field of oncology nursing. The only nurse without oncology experience was the researcher. However, the researcher had the most years of total nursing experience. The only nurse that did not have a masters degree or was not participating in a masters program was a BSN and all her nursing experience was in oncology nursing.

The information obtained regarding the nursing background of the nurses participating in the study does not offer any explanation for the many coding disagreements seen in the intercoding results. The nursing experience and education levels of the nurses are not significantly different. Their personal background and personal caring

Table 1

Summary of Nursing Experience and Education Level of the Six Nurses Participating in Coding Task

Years Nursing	Years Oncology Nursing	Education	Certification	Coding Task
22	19	MSN	OCN	difficult
14	9	MSN	AOCN,NP	easy
14	14	MSN	---	easy
6	6	BSN	OCN	easy
20	17	MSN	OCN	easy
26	--	MSNc	---	difficult

experiences are not known, which may well have had an influence on how they perceived the sub-concept categories.

Table 2 summarizes the intervention coding results and shows the actual observed number of agreements and disagreements among all six nurses. It can be noted that there was a considerable amount of disagreement among the nurses.

Table 3 summarizes the kappa statistics computed between the nurses based on the total number of observed agreements and disagreements. In any intercoding procedure, a certain number of agreements can be expected simply due to chance. Kappa is an indication of the proportion of agreement that is due to true rater agreement and not just due to chance.

Table 2

Actual Observed Number of Agreements and Disagreements Among All Six Nurses After Coding the 205 Interventions Listed for the Original Study

Nurse	1	2	3	4	5	6
1						
Agree	--	64	125	129	140	182
Disagree	--	141	80	76	65	23
2						
Agree		--	53	90	100	67
Disagree		--	152	115	105	138
3						
Agree			--	82	144	134
Disagree			--	123	61	71
4						
Agree				--	167	143
Disagree				--	38	62
5						
Agree					--	148
Disagree					--	57

Table 3

Kappa Based on Total Number of Agreements and Disagreements Between All Six Nurses After Coding the 205 Interventions Listed for the Original Study

Nurse	1	2	3	4	5	6
1	--	.15	.50	.52	.59	.86
2		--	.08	.27	.32	.18
3			--	.48	.60	.54
4				--	.74	.61
5					--	.64
6						--

Kappa was computed between the nurses individually and among the nurses as a whole. The only statistically significant amount of agreement was between nurse one and nurse six with a kappa of .86, and between nurse four and nurse five with a kappa of .74. Kappa among the nurses as a whole was only .56, indicating a low level of agreement.

As stated earlier, it was predetermined that there must be an agreement of at least four nurses before an intervention could be categorized. It was decided by the researcher that without such a majority agreement, an intervention could not be said to validly or reliably represent any category. Of the 205 interventions, 39 interventions were coded the same by all the nurses. Eighty-five interventions were coded the same by five nurses. Twenty-four interventions were coded the same by four nurses, and 57 interventions were deleted because only three or less coded the interventions the same. Those interventions that were deleted are listed as follows:

1. Consult-appointment changing
2. Communicate with health provider: nurse,oncologist,pharmacist,physician

Counsel/support:
22. Assist with problem solving
25. Conduct family conference
28. RE active listening
31. RE anticipatory guidance
33. RE body image enhancement
35. RE caregiver support
40. RE decisional conflict
44. RE family mobilization
45. RE family roles
46. RE family caregiving
57. RE respite care
58. RE role enhancement

59. RE sexual counseling
60. RE sibling support
61. RE support group

Teach:
162. Counsel RE hospice
163. Give educational materials
164. Bibliotherapy
165. Bleeding precautions/instruction
166. Bleeding reduction
167. Bowel management
168. Diet/nutrition
169. Discharge planning
170. Disease process diagnosis
171. Teach exercise
172. Exercise therapy:ambulation
173. Guided imagery
174. Hair care/alopecia
175. Health system
176. Humor
177. Infection control/prevention
178. Infection protection
179. Medications
180. Memory training
181. Music therapy
182. Oral care
183. Ostomy care
184. Patient controlled analgesia(PCA)assistance
185. Medical plan of care
186. Prevention of complications
187. Progressive muscle relaxation
188. Pruritis
189. Relaxation techniques
190. Self care(bathing,feeding,dressing,toileting)
191. Self monitoring
192. Smoking cessation
193. Symptom control
194. Treatment
195. Treatment chemotherapy
196. Treatment radiation
197. Treatment radiation external beam
198. Treatment radiation internal
199. Treatment surgery
200. Urgent care
205. Access informatics

Most of the coder disagreement involved professional nurse interventions listed under support/counseling and teaching and concerned the subconcepts of support, empathy, and communication. Only one of the 57 interventions deleted

for lack of majority agreement did not have one or more of the nurses code it as support.

Most of the coder agreement involved professional nurse interventions listed under assessment/monitoring, management, nurse administered procedures, referrals, and visits. Table 4 summarizes the 148 coded interventions according to category. The nurses agreed most often when coding an intervention as time/helping, followed by being there, support, empathy, and communication.

Following the deletion of the 57 previously listed interventions for less than majority agreement, the statistics were recomputed. Kappa among the nurses as a whole increased to .75 which is an acceptable level of non chance agreement. However, because of the initial overall disagreements and resulting deletions, the results suggest only partial support of the professional nurse caring model of nursing as described by Green-Hernandez (1991a, 1991b).

Table 4

Summary of the 148 Coded Interventions According to the Sub-concepts of Time Helping, Being There, Support, Empathy, and Communication

Intervention Category	Number of Interventions
Time/Helping	52
Being There	45
Support	30
Empathy	11
Communication	10

Table 5 summarizes the kappa statistics among the six nurses individually, after the deletion of the 57 interventions that could not be categorized because of less than majority agreement.

Table 5

Kappa Based on Agreements and Disagreements Among the Six Nurses After Deletion of Noncategorized Interventions

Nurse	1	2	3	4	5	6
1	--	.23	--	.76	.87	.89
2		--	--	.18	.24	.25
3			--	--	--	--
4				--	.82	.86
5					--	.96
6						--

As shown in Table 5, there was acceptable levels of agreement between nurse one and nurses four, five, and six, nurse four and nurses five and six, and nurse five and nurse six. There were no acceptable levels of agreement between nurse two and any other nurse, which might be an indication of unreliability of the rater.

After the deletions, kappa could not be computed between nurse 3 and any other nurse because it left no interventions coded as empathy (3) by nurse 3. Kappa cannot be computed when the columns do not match the rows. Kappa could be computed between nurse 3 and the other nurses if all the interventions coded as empathy were left out.

However, leaving out the interventions would seem to make the results even less reliable than leaving out nurse 3, because based on majority agreement, several interventions were finally coded as empathy.

Other Coding Results and Analysis

Because of intercoding disagreement, 57 professional nurse interventions from the list of interventions compiled for the original study could not be coded under the sub-concepts of being there, support, empathy, communication, time/helping, or reciprocity. Table 6 summarizes the 57 previously listed deleted interventions.

Thirty-nine of the 57 interventions unable to be coded included all of the interventions on the original list under teaching. Communication, as defined for the purpose of this study, specifically included teaching. Despite this, only two of the nurses coded the teaching interventions as communication. Three of the nurses coded the teaching interventions as support, and one nurse coded them as time/helping. These results suggest that the nurses may not have read the material sent to them very well before sorting the cards. Instead, they may have sorted the cards according to their perceptions of their most recent teaching experience.

Fifteen professional nurse interventions listed under counsel/support for the original study were unable to be categorized. These included counsel/support regarding active listening, anticipatory guidance, anxiety reduction,

Table 6

Summary of the 57 Professional Nurse Interventions Deleted From the Original List Because of Lack of Intercoder Agreement

Deleted Interventions	Number of Interventions	Percent of Total(57)
All teaching interventions	39	68
Counsel/support interventions	15	26
Consult appointment changing	1	2
Communicate with health care provider; nurse, oncologist, pharmacist, physician	1	2
Access Informatics	1	2

caregiver support, decisional conflict, family mobilization, family roles, family caregiving, respite care, role enhancement, sexual counseling, sibling support, and support group, assist with problem solving, and conduct family conference. The other three professional nurse interventions not categorized were listed separately as consult appointment changing, communicate with health care provider; nurse, oncologist, pharmacist, physician, and access informatics. All of these interventions involved many coder disagreements. Different nurses saw these interventions as representing the categories of being there, support, empathy, and communication. One nurse coded one as reciprocity. Another nurse did not code two of the deleted interventions at all.

These disagreements in coding may have been a result of the categories not being mutually exclusive, although as seen in Table 1, only two nurses indicated they thought the coding task was difficult because they felt some of the interventions fell into more than one category. One nurse commented that she thought the categories were similar, but she marked that she found the coding task easy. It is not known what comments came from which nurses.

Sample Results and Analysis

The professional nurse interventions actually used by the professional nurses in this study were used with a sample of 11 lymphoma patients and their families recruited for the Rural Partnership Linkage for Cancer Care study. The demographic data for the study sample is summarized in Figure 1.

Six patients (54.5%) were male, and five patients (45.5%) were female. All patients (100%) were white.

Patient ages ranged from 33 years of age to 93 years of age. The mean age was 61 years of age. Nine patients (82%) were over the age of 50. The remaining two patients were both in their thirties.

The two oldest patients, ages 86 and 93, were the only patients not receiving active treatment for their disease. These two patients were also the only patients with recurrence of disease. Of the remaining nine patients, eight (73%) were receiving chemotherapy and one patient (9%) was receiving radiation therapy.

Patient ID	Age	Sex	Race	MS	WS	Ed.	LA	Ca	Stage	Status	Rx	CG	CGLWP
192	65	M	W	M	R	<HS	H	L	4	N	R	S	YES
137	86	F	W	W	R	<HS	H	L	NS	R	N	O	NO
75	33	M	W	M	D	CG	H	L	4	N	C	S	YES
70	37	M	W	D	U	<HS	H	L	2	N	C	S	YES
13	56	F	W	D	F	HS	H	L	NS	N	C	C	YES
11	52	F	W	M	R	C	H	L	NS	N	C	S	YES
23	66	F	W	M	R	HS	H	L	4	N	C	S	YES
25	54	F	W	M	D	C	H	L	4	N	C	S	YES
16	60	M	W	M	D	HS	H	L	NS	N	C	S	YES
17	67	M	W	D	R	HS	H	L	3	N	C	C	YES
33	93	M	W	W	R	<HS	H	L	4	R	N	O	NO

KEY:

SEX:	WORK STATUS:	LIVING ARRANGMENTS:	TREATMENT:
F - FEMALE	R - RETIRED	H - PRIVATE HOME	R - RADIATION
M - MALE	D - DISABLITY	CANCER:	C - CHEMOTHERAPY
RACE:	U - UNEMPLOYED	L - LYMPHOMA	N - NONE
W - WHITE	F - EMPLOYED FULL TIME	STAGE:	CAREGIVER:
MARTIAL STATUS:	EDUCATION:	NS - NOT STAGED	C - CHILD
M - MARRIED	<HS - LESS THAN HIGH SCHOOL	STATUS:	S - SPOUSE
D - DIVORCED	HS - HIGH SCHOOL GRADUATED	N - NEW	O -OTHER
W - WIDOWED	C - SOME COLLEGE	R - RECURRENCE	
	CG - COLLEGE GRADUATE		

MS: Martial Status	LA: Living Arrangment	CGLWP: Caregiver Lives with Patient
WS: Patient Work Status	Ca: Cancer	CGWS: Caregiver Work Status
Rel.: Religion	Rx: Treatment	
Ed.: Education	CG: Caregiver	

Figure 1. Summary of Study Sample Demographic Data

Seven (64%) patients were married, two (18%) were divorced, and two (18%) were widowed. Both the divorced and widowed groups were made up of one male and one female.

The nine married patients lived with their spouses and indicated them as caregivers. Both widowed patients lived alone. The female patient had a female friend she indicated as caregiver. The male patient indicated a female housekeeper as caregiver. The two divorced patients both lived with children whom they considered caregivers.

All patients had at least some high school education. However, the majority had only high school education or less (73%). Only one male patient had a four year college degree.

Five (45.5%) patients were identified as Stage IV of the Ann Arbor staging system. One (9%) patient was identified as Stage II and one (9%) patient was identified as Stage III. The remaining four patients were not staged.

Only one (9%) patient was unemployed and one (9%) patient was still employed full time. Six (54.5%) patients were retired, while three (27%) were on some type of short or long term disability from work.

The sample population was homogeneous in that all the patients were diagnosed with lymphoma, all the patients were white, and all the patients had identified caregivers, most of whom lived with the patients. Approximately half the patients were male and half the patients were female. The majority of the patients were married, over the age of 50,

not working, and had an education level of high school or less.

The sample population represented at least three different stages of the disease. This could be indicative that the problems, needs, and concerns of the general population of lymphoma patients and their families were represented, though in a limited way, due to the small sample size.

Intervention Data Results

Of the 205 possible professional nurse interventions compiled for the original study, the nurses actually used 121 different interventions with the 11 sample lymphoma patients and their families, for a total of 1,860 interventions in all. The nurses document use of five interventions that could not be found as stated on the original list. For convenience, these five interventions were combined and counted as intervention 206. These five interventions accounted for 12 of the total 1,860 interventions used.

Forty of the professional nurse interventions used by the nurses were interventions that could not be categorized because of lack of agreement. Figure 2 is a list of the professional nurse interventions used by the nurses, the frequency with which they were used, and how they were categorized or not.

Table 7 summarizes the interventions used by the professional nurses according to category and total number

Interventions Used	Frequency	Being There	Support	Empathy	Communication	Time/Help	Not Categorized
28	72						X
17	71	X					
2	71						X
8	64	X					
179	62						X
22	60						X
5	59	X					
26	56				X		
37	49				X		
205	49						X
49	47			X			
43	45			X			
168	40						X
10	38	X					
170	36						X
6	35	X					
48	34			X			
23	32	X					
35	31						X
24	29	X					
12	29	X					
185	27						X
193	25						X
125	25		X				
163	24						X
79	24	X					
16	24	X					
21	23		X				
51	23			X			
52	23				X		
195	23						X
190	22						X
189	21						X

Figure 2. Professional Nurse Interventions Used by the Nurses With the 11 Lymphoma Patients of the Study Sample, and how They Were Categorized or Not Categorized

Interventions Used	Frequency	Being There	Support	Empathy	Communication	Time/Help	Not Categorized
111	21		X				
191	20						X
63	20	X					
18	20	X					
7	20	X					
186	18						X
126	13		X				
59	13						X
19	13	X					
119	12		X				
47	12		X				
33	12						X
9	12	X					
4	12	X					
197	11						X
94	11					X	
177	11						X
50	11			X			
11	11	X					
175	10						X
114	10		X				
67	10	X					
106	9		X				
40	9						X
36	9				X		
20	9	X					
39	8			X			
15	8	X					
171	7						X
165	7						X
115	7		X				
104	7		X				
72	7	X					
56	7				X		
32	7			X			
29	7			X			

Figure 2 (cont.)

Interventions Used	Frequency	Being There	Support	Empathy	Communication	Time/Help	Not Categorized
127	6		X				
81	6	X					
76	6	X					
27	6		X				
173	5						X
150	5					X	
112	5		X				
107	5		X				
105	5		X				
78	5	X					
68	5	X					
66	5	X					
55	5				X		
42	5				X		
31	5						X
25	5						X
13	5	X					
1	5						X
46	4						X
80	4	X					
41	4			X			
196	3						X
162	3						X
188	2						X
182	2						X
174	2						X
130	2		X				
128	2		X				
102	2					X	
91	2					X	
84	2					X	
69	2	X					
199	1						X
172	1						X
167	1						X
144	1					X	

Figure 2 (cont.)

Interventions Used	Frequency	Being There	Support	Empathy	Communication	Time/Help	Not Categorized
129	1		X				
122	1		X				
121	1		X				
108	1		X				
75	1	X					
65	1	X					
61	1						X
58	1						X
54	1				X		
53	1				X		
45	1						X
38	1				X		
34	1			X			
30	1			X			
14	1	X					
206	12						X

Figure 2. Professional Nurse Interventions Used by the Nurses With the 11 Lymphoma Patients of the Study Sample, and how They Were Categorized or Not Categorized (cont.)

Table 7

Summary of Intervention Categories Represented by Interventions Actually used by the 1,860 Nurses with the Sample Patients and Their Families

Intervention Category	Times Used	Number of Interventions	Percent
Uncategorized	40	734	40
Being There	32	588	32
Support	21	174	9
Empathy	11	157	8
Communication	10	184	10
Time/Helping	6	23	1

of times the category was used. Forty percent of the professional nurse interventions actually used by the nurses were ones that could not be categorized and represent the largest number of interventions. Interventions able to be categorized as being there represented the second most often used category. The category of communication was used less than the categories of support and empathy, but communication accounted for more individual intervention usage and a greater percent of the total 1,860 interventions used.

Table 8 lists the 19 most frequently used professional nurse interventions. These interventions were used for a total of 951 times and represent approximately 50% of the total 1,860 interventions used. Eight of the most

Table 8

Nineteen Most Frequently Used Professional Nurse Interventions

Intervention	Times Used	How Categorized
Counsel/support RE active listening	72	not categorized
Assessment/monitoring RE symptom management	71	Being There
Communicate with health care provider; nurse, oncologist, pharmacist, physician	71	not categorized
Assessment/monitoring RE follow up	64	Being There
Teach RE medication	62	not categorized
Assist with problem solving	60	not categorized
Assessment/monitoring RE complications	59	Being There
Discuss problems of care with patient	56	Communication
Counsel/support RE coping enhancement	49	Communication
Access informatics	49	not categorized
Counsel/support RE hope instillation	47	Empathy
Counsel/support RE ego enhancement	45	Empathy
Teach diet/nutrition	40	not categorized
Assessment/monitoring RE knowledge	38	Being There
Teach disease process/Dx.	36	not categorized
Assessment/monitoring RE disease progression/ recurrence	35	Being There
Counsel/support RE grieving	34	Empathy
Conduct cognitive assessment	32	Being There
Counsel/support RE caregiver support	31	not categorized

Note. RE = regarding

frequently used professional nurse interventions, which includes the most frequently used intervention, are interventions that were not able to be categorized because

of lack of coder agreement. Six of the 19 interventions used most often were categorized as being there. Three of the 19 interventions used most often were categorized as empathy, and two were categorized as communication. Even though support was the second most used category overall, the categories of support and time/helping were not represented among the 19 most frequently used interventions. Being there was the most often used category overall, and also the most often used category among the 19 most frequently used interventions.

Table 9 summarizes the categories represented by the 19 most frequently used professional nurse interventions. Similar to the category use for the total 1,860 interventions used (Table 7), the category represented most often in the top 19 interventions was really the not categorized category, followed by being there, empathy and communication. Table 7 and Table 9 indicate that the interventions the nurses used the most overall, and used individually most often, were interventions unable to be categorized.

Other Intervention Results and Analysis

Forty-seven professional nurse interventions were used five times or less and account for 35% of the total 1,860 interventions used. Nineteen professional nurse interventions were used only one time. Table 10 lists the professional nurse interventions used only once and how they were categorized.

Table 9

Category Summary of the 19 Most Frequently used Professional Nurse Interventions

Category	Times Used	Number of Interventions	Percent
Not categorized	8	421	42
Being There	6	299	32
Empathy	3	126	16
Communication	2	105	10
Support	--	--	--
Time/Helping	--	--	--

Table 10

Nineteen Professional Nurse Interventions Used Only Once

Intervention	Category
Assessment/monitoring RE recurrence	Being There
Counsel/support RE anger control assistance	Empathy
Counsel/support RE body image enhancement	Empathy
Counsel/support RE crisis intervention	Communication
Counsel/support RE family roles	Not Categorized
Counsel/support RE meditation	Communication
Counsel/support RE music therapy	Communication
Counsel/support RE role enhancement	Not Categorized
Counsel/support RE support group	Not Categorized
Management chemotherapy	Being There
Management heat/cold application for pain control	Being There
Referral durable med equipment	Support
Referral psychologist	Support
Referral PT/OT	Support
Referral wigs	Support
Skill IV cath care/Pic	Time/Helping
Teach RE bowel management	Not Categorized
Teach RE exercise therapy/ambulation	Not Categorized
Teach RE treatment/surgery	Not Categorized

Note. RE = regarding

All five categories were represented among the interventions used only once and there were six interventions that were among those unable to be categorized.

Fourteen of the 47 interventions used five times or less were interventions unable to be categorized. This data suggests that the nurses recognized the individual needs of the cancer patients and their families and used interventions specific to each situation. Another explanation for using an intervention only a few times or less would be that the nurse reevaluated the situation and saw that the intervention wasn't working, or it was only needed once, again indicating the nurse's ability to tailor interventions to individual patient and family needs. However, even though they saw the need for, and used many different interventions, the nurses could still not agree on how to code them.

Table 11 lists five interventions used by the nurses but not found on the original list of 205 possible interventions, and how often they were used. One of the five interventions, assessment/monitoring regarding compliance, could not be matched with any intervention from the original list. Four of the five interventions could be equated to interventions from the original list. Assessment/monitoring regarding physical functioning could include all the interventions under assessment/monitoring on the original list. Assessment/ monitoring regarding financial status and adequacy could be used in place of

Table 11

Five Interventions Used But Not Found on the List of Possible Interventions Compiled for the Original Study

Intervention	Times Used
Assessment/monitoring RE physical functioning	4
Assessment/monitoring RE financial status and adequacy	3
Counsel/support RE durable power of attorney/living will	1
Assessment/monitoring RE mental health	3
Assessment/monitoring RE compliance	1

Note. RE = regarding

counsel/support regarding financial assistance. Counsel/support regarding durable power of attorney/living will could be used in place of management regarding code/advanced directive. Assessment/monitoring regarding mental health could be used in place of conduct a cognitive assessment. The concepts are the same, but this difference in wording could indicate a possible bias of some nurses to use certain interventions or at least label them in a personally preferred manner.

Study Limitations

The statistical analysis of the intercoding results for this study was based on computing kappa as an indicator of chance corrected agreement. Using kappa is indicated in determining chance corrected agreement for nominal data.

Kappa can be used if three conditions are met: 1) whatever is being rated is independent of each other, 2) the raters make their judgments independently from one another, and 3) the categories are mutually exclusive (Streiner, D., 1995).

However, Zwick (1988) proposes that the assessment of rater agreement should consist of two phases: 1) the investigation of marginal homogeneity, and 2) if homogeneity holds, then do measurements of chance corrected agreement. If there is no homogeneity then one need go no further.

This two step procedure was not followed in this study. Had the time and funds been available to conduct the study in this manner, the final results may have been more conclusive. Sessions should have been held with the participating nurses prior to performing the coding task to arrive at consensual definitions for the categories to be coded. This would have ensured the mutual exclusiveness of the categories and validated proceeding to the second step.

As it was, the nurses were provided with minimal background information regarding the professional nurse caring model of nursing being tested and about the present study itself. It was assumed that each nurse actually read the material along with the instructions. The nurses were not known to be experienced researchers or experienced in intercoding procedures. There were no discussions or practice sessions before performing the coding task. According to Streiner (1995), rater reliability and levels of agreement increase with rater experience and training.

Another method for increasing interrater reliability is eliminating the least reliable raters and going with only the most reliable raters. Again, practice sessions would need to be held to determine the most reliable raters. Had this procedure been done and nurse two determined least reliable and eliminated, the coding results would have been significantly different.

The fact that the nurses commented on the similarity between categories and the obvious lack of agreement seen in the intercoding results, may be an indication that the categories are not truly mutually exclusive. Intercoding reliability relies on the ability of the coders to independently code items into mutually exclusive categories. The conceptual definitions of the categories may not have been sufficient or specific enough to ensure that they were mutually exclusive.

Another issue to consider regarding the intercoding results is the fact that the researcher was included in the study. As a rule, if errors are random, increasing the number of raters will lead to more reliable results. However, since the researcher was testing a model that she hoped would be supported by the results, it could be argued that personal bias would make her the least reliable rater and she should not have been included.

Much of the data for this study is the result of a secondary analysis of previously collected data from the Rural Partnership Linkage for Cancer Care as described

earlier. This is a limitation in itself, because this researcher was not involved in either the planning or the data gathering for the original study. The list of the 205 possible professional nurse interventions was supplied to the researcher as it appears in this paper. It is not known to the researcher if the five nurses working with the cancer patients and their families and who participated in the intercoding task were involved in creating the list. It is also not known by the researcher exactly what kind of preparation or instructions the nurses were given when first starting to interact with the cancer patients and their families. It is not known how much the interventions were discussed or how well they were defined for the nurses before hand. It would most likely affect how the nurses coded the interventions if they had not been involved in creating the list, and had just been left to interpret what each intervention meant on their own. Further insight into these issues could have been gained it they had been addressed in the follow up survey but they were not.

The five professional nurses asked to take part in this study as the experts were actively involved with the care of the sample population and actually using the professional nurse interventions being examined. The nurses were all experienced oncology nurses. However, the intervention data may be skewed because personal bias may have prevented some nurses from using certain interventions. The fact that the nurses used interventions that were not even on the original

list would support the idea that nurses do have personal preferences or that they view what they are doing as something different from what is on the list. It is not known which nurses interacted with which patients, so it is not known which nurses used which interventions. Each nurse would most likely tend to use interventions that she was more familiar with or more skilled in using.

The sample size of 11 lymphoma patients was small, but the number of interventions actually used with these patients and families was large (1,860). This study assumes the needs of lymphoma patients and their families are the same as the needs of other cancer patients and their families. Specific references to the needs of lymphoma patients and their families could not be found.

DISCUSSION

Discussion of Question 1

To answer the question, "How do professional nurse interventions with cancer patients and their families operationalize a professional nurse caring model of nursing?", the researcher and five professional oncology nurses caring for cancer patients and their families coded 205 possible professional nurse interventions under the sub-concepts of Green-Hernandez's professional nurse caring model of nursing. The sub-concepts of the Green-Hernandez model are being there, support, empathy, communication, time/helping, and reciprocity.

The Green-Hernandez model of professional nurse caring includes all nursing therapeutics as intentional caring actions. This study does not fully support this idea because 57 interventions had to be deleted from the original list of interventions due to lack agreement on how to categorize them.

The intercoding results of this study partially support Green-Hernandez's professional nurse caring model of nursing. One hundred forty-eight interventions were able to be categorized under the sub-concepts of the model. Only five sub-concepts of Green-Hernandez's professional nurse caring model were represented by the coding results. Of the 148 professional nurse interventions considered, 52 were categorized as time/helping, 45 were categorized as being there, 30 were categorized as support, 11 were categorized as empathy, and 10 were categorized as communication. The final intervention categories based on the intercoding results are as follows:

Being there:

Assessment/monitoring:

RE acid base/fluid/electrolytes
RE cardiac care?PVC/rate/VS
RE complications
RE disease progression/recurrence
RE family
RE follow up
RE infection
RE knowledge/understanding
RE neuro
RE nutrition
RE oral health
RE recurrence
RE safety

RE skin integrity
RE symptom management
RE tests/lab values
RE treatment tolerance
RE vital signs

Counsel/support:
Conduct cognitive assessment
Conduct family assessment

Management:
Acid base
Alter medications
Artificial airway
Chemotherapy
Code:advanced directive
Constipation
Coordination of care
Decision-making support
Diarrhea
Dying
Energy
Environmental:comfort
Environmental:safety
Heat/cold application for pain control
Home maintenance assistance
Hypoglycemia management
Infection control
Prescribe OTC meds
Weight gain
Weight loss
Smoking cessation
Visit clinic
Visit home
Visit hospice
Visit hospital

Support:

Counsel/support:

Advocate:health system guidance
Mobilize resources
RE financial assistance

Referral:
American Cancer Society
Chore service
Church group(informal)
Counselor
Durable med equipment
ER-urgent care
Family mobilization

Family practice/internist
Friend(informal)
Home nursing
Hospice
Insurance counselor
Meal service
Neighbor(informal)
Oncologist
Priest/minister
Prosthetic(breast)
Psychologist
PT/OT
Reach to recovery
Respite
Social worker
Support group
Transportation
VNS/skilled home care
Wigs
Nutritionist

Empathy:

Counsel/support:
RE anger
RE anger control assistance
RE anxiety
RE body image enhancement
RE death/grief
RE depression
RE ego enhancement
RE grieving
RE hope instillation
RE humor
RE individual

Communication:

Counsel/support:
Discuss problems of care with family
RE communication enhancement
RE coping enhancement/meditation
RE crisis intervention
RE distraction
RE lifestyle changes
RE meditation
RE music therapy
RE mutual goal setting
RE reframing/cognitive restriction

Time/helping:

Procedures(nurse administered):
- Draw labs
- Dressing change
- Ear care
- Eye care
- Fistula
- Heat/cold therapy
- Incision care(wound)
- IV catheter care
- IV catheter flush
- IV insertion/therapy
- Massage/back rub
- Order lab test
- Other specimen
- Touch
- Trach care
- Tube care(ie. gastric tube)
- Urinary catheterization
- Urine specimens
- Venous access
- Vital signs

Skill:
- Care of NG tube
- Constipation prevention
- Crutches/walker
- Dressing change
- Enemas
- Feeding tubes
- Fistula care
- Fluids administration
- Foley catheter care
- Guided imagery
- Incision site care
- Incontinence
- Infusion pumps
- Iv catheter care/PIC
- Med administration-topical patch
- Med administration-IM injection
- Med administration-IV
- Med administration-PO
- Med administration-PR
- Med administration-SQ
- Mouth care
- Oxygen administration
- Positioning
- Range of motion exercises
- Respirator care
- Skin care/decubiti
- Stoma/appliance care
- Suctioning

Transfer techniques
Tube feeding administration
Urine/stool testing

Unlike the Green-Hernandez model, the final category results did not include reciprocity. This would suggest that the sub-concept of reciprocity need not be included in a professional nurse caring model of nursing.

There were few disagreements among the nurses regarding interventions coded as time/helping and being there. This would suggest that the conceptual definitions of these categories were adequate and well understood by the nurses. Most of the disagreements concerned support, empathy, and communication, suggesting that the conceptual definitions of these categories need to be clarified.

The operational definitions of the sub-concepts of being there, support, empathy, communication, and time/helping, derived from this study are:

Being there; Activities including assessment, monitoring, and management of patient's physical and mental condition, and all actual visits.

Support; Activities involved in advocacy, making referrals, and counseling to facilitate decision making and to strengthen individual and family support systems.

Empathy; Activities involved in counseling regarding feeling and emotions.

Communication; Activities involved in discussing problems of care, crisis intervention, and counseling about

coping techniques, lifestyle changes, and alternative treatment techniques.

Time/helping; Activities involved in nurse administered procedures and skilled nursing tasks.

The results of this study were derived from professional nurse interventions designed for one specific area of nursing practice, interventions with cancer patients and their families. Before a professional nurse caring model can be developed for use as a basis for professional nurse caring in any practice setting, there must be a clarification of concepts. It would seem from this study that a professional nurse caring model of nursing that defines support as the central core concept encompassing the sub-concepts of being there, empathy, communication, and time/helping, would be more appropriate and applicable to what nurses do.

Discussion Of Question 2

To answer the question, "How are the professional nurse interventions used by professional nurses with cancer patients and their families associated with a professional nurse caring model of nursing?", the professional nurse interventions actually used by professional nurses with cancer patients and their families were examined. From the review of nursing literature it was anticipated that most of the professional nurse interventions used with cancer patients and their families would be associated with the sub-concepts of being there, support, and communication.

The needs of cancer patients and their families have been summarized as personal needs, instrumental needs, and administrative needs. Personal needs are related to self-care. Instrumental needs are related to activities such as meal preparation, housework, shopping, transportation, home health aides, and child care. Administrative needs are related to help with forms, financial advice, legal advice, and information of the patient's particular disease (Laizner, Yost, Barg, & McCorkle, 1993). All of these activities are reflected in the professional nurse interventions used with cancer patients and their families in this study.

Other nursing studies (Hull, 1989, Martens & Davies, 1990; Longman, Atwood, Sherman, Benedict, & Shang, 1991; Smith, Holcombe, & Stullenbarger, 1994; Kristjanson & Ashcroft, 1994) have identified many needs for cancer patients and their families. In these studies patients and families have reported the following nursing behaviors as most important to them:

1. Providing patient comfort and relieving pain and distress.
2. Competent medical care.
3. Giving information about the patient's condition, diagnosis, prognosis, and treatment.
4. Being physically available.
5. Teaching skills required for caregiving.

6. Helping to access the health care system and providing communication with other health care providers.
7. Listening.
8. Assisting them to obtain respite care and support services.

Again, all of these patient and family needs are reflected in the professional nurse interventions actually used with the cancer patients and their families in this study.

The overall intervention category use by the professional nurses reveals the nurses used professional nurse interventions categorized as being there the most, followed by support, communication and empathy, and time/helping. The 19 most frequently used interventions were associated with the categories of being there, empathy, and communication.

Discussion of Other Findings

The intercoding findings resulted in the deletion of 57 professional nurse interventions from the list of possible interventions. Some of the nurses had difficulty in labeling what they do for and with patients, and when they did label their activities, the results revealed many disagreements. What the nurses actually did for or with the patient is not known. There were no written protocols stating exactly what actions were to be used for each specific intervention. All five nurses could chart use of the same intervention and yet their actions may not have been the same, nor undertaken for the same reasons. With

this in mind, it would be reasonable to expect that the nurses would code the interventions based on the activities they each employed for a specific intervention for a particular patient or family. The nurses would most likely code an intervention based on their most recent patient interactions. The coding results would reflect their most recent frame of reference and could conceivably change from day to day depending on their most recent patient/family interaction.

Intercoder disagreements took place between the category of support and every other category. All professional nursing interventions are based on individual patient and family assessment and undertaken for the welfare of the patient and/or family, in an attempt to reach and maintain mutually designated goals. From this perspective, all the interventions can be seen as supportive. Any nurse, at any given time, might see an intervention as support depending on the patient or the reason it was undertaken.

The deletion of the 57 professional nurse interventions from lack of intercoder agreement also resulted in the deletion of eight of the 19 most frequently used professional nurse interventions. The most frequently used professional nurse intervention, consult/support regarding active listening, could not be categorized due to lack of agreement. Communicate with health care provider; nurse, oncologist, pharmacist, and physician was used only one time less than the most frequently used intervention, and also

could not be categorized. Three of the most frequently used interventions were teaching interventions. All of the teaching interventions were deleted due to lack of coder agreement.

All of the most frequently used interventions that could not be categorized reflect the previously mentioned most important needs and concerns of cancer patients and their families. Teaching was among the nursing behaviors the cancer patients and their families indicated they needed most. Twenty-five of the 39 possible teaching interventions were used by the nurses, but could not be considered in the intervention data to determine how the interventions used were associated with the intervention categories. The nurses were performing the anticipated activities, but saw themselves performing in different categories. Teaching was seen as support, communication, as well as being there. These results indicate a serious deficiency in the conceptual definitions of the categories or a lack of consensus as to what constitutes teaching.

The many interventions that were used only once support the idea that the nurses are using specific interventions to meet unique individual and family needs. But again, six of these 19 interventions had to be deleted due to lack of coder agreement. It is obvious that the professional nurses in this study are meeting the expected needs of the patients and families, and just as obvious that the nurses themselves

can not agree on how to label or categorize their professional nurse caring actions.

The use of the five interventions not found on the original list of possible interventions also indicates how the nurses may be doing the same nursing actions but calling them by slightly different names. This use of different wording could be enough to cause the nurses to see their actions in different categories.

Implications For Advanced Nursing Practice

Caring in nursing has been discussed in this paper as a process involving multiple actions. It has been proposed that all nursing therapeutics are intentional caring actions. The findings of this study tend to support this premise, however the results are not conclusive and only partially support the proposed model of caring.

Advanced nursing practice relies on expert use of the nursing process and expert clinical judgement. The fact that the advanced practice nurses in this study used 121 different nursing interventions for only 11 patients and their families supports the idea that the nurses made expert use of the nursing process and their clinical judgement skills to implement interventions specific to each patient's and family's needs. This idea is also supported by the fact that many interventions were used only time, most likely in response to a specific need or situation.

An expert advanced nursing practice should emphasize clinical knowledge and clinical judgement. According to

Benner (1984), expert advanced practice nurses need to humanize care by mastering technology. The power of caring and not the power of technology, must remain the ultimate resource in recovery, dignity, and health.

This study indicates a need for professional nurses to agree on a conceptual definition of professional nurse caring. The sub-concepts of being there, support, empathy, communication, and time/helping must be more explicitly defined. If these categories proposed as the basis for a professional nurse caring model of nursing are not mutually exclusive, then they must be combined in such a way that all professional nurse interventions can be readily assigned to the same category by all professional nurses.

It is evident from the coding results that there is a great deal of controversy surrounding the concept of support. The role of the professional nurse, especially with cancer patients and their families, can be seen at any given time as supportive. Is support a sub-concept of professional nurse caring, or is professional nurse caring a sub-concept of support? Professional nurses must agree on what professional nurse caring is, so nursing practice will not be reduced to being just a job, instead of the caring practice it is.

Using a professional nurse caring model of nursing can help professional nurses to better understand their caring behaviors. However, a different model needs to be explored and tested. It would seem from this study that a

professional nurse caring model of nursing based on the major concept of support which incorporated the sub-concepts of being there, empathy, communication, and time/helping would be more useful in actual clinical practice.

The professional nurse interventions that the professional nurses used with the cancer patients and their families in this study showcase the varied roles of the advanced practice nurse, and emphasize the need for such nurses for cancer patients and their families. Because of their advanced education and level of expertise, advanced practice nurses are well equipped to fulfill the roles involved in caring for cancer patients and their families.

The needs of cancer patients and their families include psychosocial issues as well as physical aspects of care. As outpatients, the patients and families in this study are part of the primary care system. Primary care is the provision of integrated, accessible healthcare services by providers including advanced practice nurses, who address the health care needs of patients in a family and community setting. These services include health promotion as well as management of simple acute or complex chronic illness. Services are provided along a continuum from birth to death.

More and more professional nurses are entering the realm of primary care as advanced practice nurses. As evidenced by the patients and families in this study, advanced practice nurses are becoming responsible for the management of increasingly complex patients and situations.

As the professional nurse interventions used with cancer patients and their families in this study indicate, the advanced practice nurse must be skilled in communication, and must be an expert assessor, counselor, practitioner, resource person, and coordinator of care.

Implications For Nursing research

The lack of agreement among the few nurses involved in this study can be seen as an indication that professional nurses in all practice settings must first define what it is they do in more explicate terms. If nursing practice is to be financially reimbursed, it must be defined in terms that are understood by all, especially by those that determine health care policy and reimbursement issues. As indicated in this study, to use the term teach will not be good enough. Nursing cannot expect to be reimbursed for "teaching", when they can't even agree among themselves what it is they are doing. Specific nursing actions must be defined in mutually exclusive terms, and this information provided by nurses themselves to those involved in health care reform.

It can be implied from the intervention results that what professional nurses are doing with and for cancer patients and their families are based on the individual needs and concerns of each patient and family. As discussed earlier, nursing literature has documented what cancer patients and their families consider most important in regards to nursing actions. Professional nurses are using a

formal nursing process of assessment, diagnosis, planning, implementation, and evaluation to intervene on the behalf each patient and family. The next step is to document the patient outcomes of these professional nurse interventions. Effective research relating clinical practices and their costs to measurable improvements in patient's health must be done.

Professional nurse interventions derived through the use of a caring nursing process should result in positive outcomes, measurable improvements in patient health, because caring interventions are used with the patient and family in mind, and because the patient and family matter. Nursing research needs to link professional nurse interventions to patient outcomes. Because evaluation is an integral part of the nursing process, the effectiveness of nursing actions or interventions can be documented and economically valued.

Specific outcome categories need to be determined that professional nurse interventions can be measured against. Measurable outcomes can be patient functioning, physical, psychological, and social, patient comfort, and patient and family satisfaction. Are professional nurse interventions resulting in longer survival rates, higher levels of patient functioning, fewer hospitalizations, longer times between hospital admissions, decreases in complications? Do patients report higher comfort levels and less pain, less anxiety? Are patients going to work or school, gaining or losing weight? Do caregivers feel less burdened?

Detailed and comprehensive descriptions of interventions, exactly how they are used and exactly what it is the nurse is doing, would be useful in evaluating professional nurse interventions. It must be made more explicit what types of care work better than others and for which patients. Future research should be directed at identifying the exact circumstances under which specific professional nurse interventions are indicated and their specific outcomes.

Like the professional nurses in this study, advanced practice nurses must actively participate in the research that is needed to substantiate the idea that professional nurse caring as professional nurse interventions is effective in delivering technically proficient and humane care that results in measurable indices of improved patient and family health. Establishing the efficacy of professional nurse interventions will ensure that patients and their families will have choices regarding health care and health care providers. It will also document the skill and knowledge involved in the caring work of professional nurses who assess, diagnose, and intervene for the well being of patients and their families. Further research is needed to connect professional nurse caring interventions with positive patient and family outcomes, so that society will begin to value the caring work that professional nurses do in more explicit cost related terms.

Summary

Research findings can be used to change practice on two levels: the individual and organizational levels. This study was undertaken for use on a personal level. The focus was primarily an attempt to validate a caring model of nursing on which to build a personal advanced nursing practice. The changes wrought by advances in science and technology have affected the relationships between patients and providers in todays health care system. Although the results of this study did not conclusively support the professional nurse caring model tested, there were however, implications for a somewhat different model. It is still this researchers belief that caring should serve as the unifying concept for all health care providers, but most importantly for nurses.

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APPENDICES

APPENDIX A

Michigan State University
UCRIHS Approval

MICHIGAN STATE
UNIVERSITY

July 18, 1996

TO: Roberta Corbat
218 E. Sugnet
Midland, MI 48642

RE: IRB#: 96-428
TITLE: PROFESSIONAL NURSE CARING AS PROFESSIONAL NURSE INTERVENTIONS WITH CANCER PATIENTS AND THEIR FAMILIES
REVISION REQUESTED: N/A
CATEGORY: 2-C,H
APPROVAL DATE: 07/16/96

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/ CHANGES: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright, Ph.D
UCRIHS Chair

DEW:bed

cc: Barbara A. Given

OFFICE OF
RESEARCH AND GRADUATE STUDIES

University Committee on Research Involving Human Subjects (UCRIHS)

Michigan State University
232 Administration Building
East Lansing, Michigan
48824-1046

517/355 2180
FAX 517/432 1171

MICHIGAN STATE
UNIVERSITY

March 6, 1996

TO: Charles Given
B108 Clinical Center

RE: IRB#: 91-277
TITLE: RURAL PARTNERSHIP LINKAGE FOR CANCER CARE

REVISION REQUESTED: N/A
CATEGORY: FULL REVIEW
APPROVAL DATE: 03/04/96

The University Committee on Research Involving Human Subjects'(UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/
CHANGES: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:bed

cc: Barbara A. Given

OFFICE OF
RESEARCH
AND
GRADUATE
STUDIES

University Committee on
Research Involving
Human Subjects
(UCRIHS)

Michigan State University
232 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX 517/432-1171

APPENDIX B

Letter of Instruction for Intercoding Procedure

Date of preparation
May 13, 1996

Dear colleague,

My name is Roberta Corbat. I am a graduate student at Michigan State University. I am conducting a study on a professional nurse caring model of nursing. I am interested in operationalizing a model of professional nurse caring with the professional nurse interventions professional nurses use with cancer patients and their families.

I am requesting your help as the expert professional nurses that actually intervened with the cancer patients and their families in the Rural Partnership Link for Cancer Care. Enclosed you will find two articles by C. Green-Hernandez, "A phenomenological investigation of caring as a lived experience in nurses" and "Professional nurse caring: A proposed conceptual model for nursing". These two articles discuss the subconcepts of being there, support, empathy, communication, time/helping, and reciprocity as a conceptual framework for a professional nurse caring model for nursing. Also included are the conceptual definitions of each subconcept as defined for the purpose of this study and a list of all 205 possible nurse interventions compiled for the Rural Partnership Link for Cancer Care.

I am asking that you assign each of the interventions to one of the subconcept categories based on the literature and the conceptual definitions enclosed. Each intervention may be placed in only one category.

You will find each intervention written on an index card. Each category is also written on an index card along with its conceptual definition. Please sort all 205 intervention cards under one of the category cards and return as soon as possible.

Sincerely,

Roberta Corbat, RN, BSN, Masters Candidate
Graduate School, School of Nursing
Michigan State University

APPENDIX C

Summary of Coding Data

SUMMARY OF CODING DATA

INTERVENTION	NURSE 1	NURSE 2	NURSE 3	NURSE 4	NURSE 5	RESEARCHER	
1	1	4	4	4	1	2	
2	2		1	2	1	2	
3	1	1	1	1	1	1	
4	1	1	1	1	1	1	
5	1	1	1	1	1	1	
6	1	1	1	1	1	1	
7	1	1	1	3	1	1	
8	1	1	1	4	1	1	
9	1	1	1	1	1	1	
10	1	1	1	2	1	1	
11	1	1	1	1	1	1	
12	1	1	1	1	1	1	
13	1	1	1	1	1	1	
14	1	1	1	1	1	1	
15	1	1	1	1	1	1	
16	1	1	1	1	1	1	
17	1	1	1	1	1	1	
18	1	1	1	2	1	1	
19	1	1	1	1	1	1	
20	2	1	1	1	1	1	
21	2	4	6	2	2	2	
22	1	4	6	4	2	4	
23	1	1	1	5	1	1	
24	4	1	1	4	1	1	
25	4	1	1	3	1	2	
26	2	4	1	4	2	4	
27	3	4	2	2	2	2	
28	3	1	3	2	4	4	
29	3	3	4	3	3	3	
30	3	3	4	3	4	3	
31	3	3	4	4	2	4	
32	3	3	4	3	3	3	
33	3	3	4	4	4	3	
34	3	3	4	3	4	3	
35	3	4	4	2	3	2	
36	3	4	4	4	4	4	
37	4	4	4	3	4	4	
38	3	4	4	4	4	3	
39	2	4	4	3	3	3	
40	3	3	4	4	2	4	
41	3	3	4	3	3	3	
42	2	3	4	4	4	4	
43	2	3	4	3	3	3	
44	2	1	4	2	4	2	SCORING KEY:
45	2	1	4	2	4	2	1 - Being there
46	2	1	4	2	3	2	2 - Support
47	2	1	4	2	2	2	3 - Empathy
48	2	3	4	3	3	3	4 - Communication
49	3	3	4	3	3	3	5 - Time/Helping
50	3	3	4	3	3	3	6 - Reciprocity

INTERVENTION	NURSE 1	NURSE 2	NURSE 3	NURSE 4	NURSE 5	RESEARCHER	
51	4	3	4	3	3	3	
52	4	3	4	4	4	4	
53	2	3	4	4	4	4	
54	2	3	4	4	4	4	
55	2	3	4	4	4	4	
56	2	3	4	4	4	4	
57	3	3	4	3	4	2	
58	2	3	4	3	4	4	
59	2	3	4	4	4	3	
60	2	1	4	3	4	2	
61	2	1	4	2	4	2	
62	1	5	1	1	1	1	
63	1	5	1	1	1	1	
64	1	5	1	1	1	1	
65	1	5	1	1	1	1	
66	1	5	1	1	1	1	
67	1	5	1	1	1	1	
68	1	5	1	2	1	1	
69	1	5	1	2	1	1	
70	1	5	1	1	1	1	
71	1	5	1	3	1	1	
72	1	5	1	2	1	1	
73	1	5	1	3	1	1	
74	1	5	1	4	1	1	
75	1	5	1	1	1	1	
76	1	5	1	4	1	1	
77	1	5	1	1	1	1	
78	1	5	1	1	1	1	
79	1	5	1	1	1	1	
80	1	5	1	1	1	1	
81	1	5	1	1	1	1	
82	1	5	1	1	1	1	
83	5	5	5	5	5	5	
84	5	5	5	5	5	5	
85	5	5	5	5	5	5	
86	5	5	5	5	5	5	
87	5	5	5	5	5	5	
88	5	5	5	5	5	5	
89	5	5	5	5	5	5	
90	5	5	5	5	5	5	
91	5	5	5	5	5	5	
92	5	5	5	5	5	5	
93	5	5	5	5	5	5	
94	5	5	5	5	5	5	SCORING KEY:
95	5	5	5	5	5	5	1 - Being there
96	5	5	5	5	5	5	2 - Support
97	5	5	5	4	5	4	3 - Empathy
98	5	5	5	5	5	5	4 - Communication
99	5	5	5	5	5	5	5 - Time/Helping
100	5	5	5	5	5	5	6 - Reciprocity

INTERVENTION	NURSE 1	NURSE 2	NURSE 3	NURSE 4	NURSE 5	RESEARCHER	
101	5	5	5	5	5	5	
102	5	5	5	5	5	5	
103	5	5	5	5	5	5	
104	22	3	2	2	2	2	
105	2	3	2	2	2	2	
106	2	3	2	2	2	2	
107	2	3	2	2	2	2	
108	2	3	2	2	2	2	
109	2	3	2	2	2	2	
110	2	3	2	2	2	2	
111	2	3	2	2	2	2	
112	2	3	2	2	2	2	
113	2	3	2	2	2	2	
114	2	3	2	2	2	2	
115	2	3	2	2	2	2	
116	2	3	2	2	2	2	
117	2	3	2	2	2	2	
118	2	3	2	2	2	2	
119	2	3	2	2	2	2	
120	2	3	2	2	2	2	
121	2	3	2	2	2	2	
122	2	3	2	2	2	2	
123	2	3	2	2	2	2	
124	2	3	2	2	2	2	
125	2	3	2	2	2	2	
126	2	2	2	2	2	2	
127	2	2	2	2	2	2	
128	2	2	2	2	2	2	
129	2	2	2	2	2	2	
130	2	2	2	2	2	2	-
131	5	2	5	5	5	5	
132	5	2	5	5	5	5	
133	5	2	5	5	5	5	
134	5	2	5	5	5	5	
135	5	2	5	5	5	5	
136	5	2	5	5	5	5	
137	5	2	5	5	5	5	
138	5	2	5	5	5	5	
139	5	2	5	5	5	5	
140	5	2	5	5	5	5	
141	5	2	5	5	5	5	
142	5	2	5	5	5	5	
143	5	2	5	5	5	5	
144	5	2	5	5	5	5	SCORING KEY:
145	5	2	5	5	5	5	1 - Being there
146	5	2	5	5	5	5	2 - Support
147	5	2	5	5	5	5	3 - Empathy
148	5	2	5	5	5	5	4 - Communication
149	5	2	5	5	5	5	5 - Time/Helping
150	5	2	5	5	5	5	6 - Reciprocity

INTERVENTION	NURSE 1	NURSE 2	NURSE 3	NURSE 4	NURSE 5	RESEARCHER	
151	5	2	5	5	5	5	
152	5	2	5	5	5	5	
153	5	2	5	5	5	5	
154	5	2	5	5	5	5	
155	5	2	5	5	5	5	
156	5	2	5	5	5	5	
157	5	2	5	5	5	5	
158	5	2	5	5	5	5	
159	5	2	5	5	5	5	
160	5	2	5	5	5	5	
161	5	2	5	5	5	4	
162	4	2	5	2	2	4	
163	4	2	5	2	2	4	
164	4	2	5	2	2	4	
165	4	2	5	2	2	4	
166	4	2	5	2	2	4	
167	4	2	5	2	2	4	
168	4	2	5	2	2	4	
169	4	2	5	2	2	4	
170	4	2	5	2	2	4	
171	4	2	5	2	2	4	
172	4	2	5	2	2	4	
173	4	2	5	2	2	4	
174	4	2	5	2	2	4	
175	4	4	5	2	2	4	
176	4	2	5	2	2	4	
177	4	2	5	2	2	4	
178	4	2	5	2	2	4	
179	4	2	5	2	2	4	
180	4	2	5	5	2	4	
181	4	2	5	2	2	4	
182	4	2	5	2	2	4	
183	4	2	5	2	2	4	
184	4	2	5	2	2	4	
185	4	4	5	2	2	4	
186	4	2	5	2	2	4	
187	4	2	5	5	2	4	
188	4	2	5	2	2	4	
189	4	2	5	5	2	4	
190	4	2	5	5	2	4	
191	4	2	5	5	2	4	
192	4	2	5	2	2	4	
193	4	2	5	2	2	4	
194	4	2	5	2	2	4	SCORING KEY:
195	4	2	5	2	2	4	1 - Being there
196	4	2	5	2	2	4	2 - Support
197	4	2	5	2	2	4	3 - Empathy
198	4	2	5	2	2	4	4 - Communication
199	4	2	5	2	2	4	5 - Time/Helping
200	4	2	5	2	2	4	6 - Reciprocity

INTERVENTION	NURSE 1	NURSE 2	NURSE 3	NURSE 4	NURSE 5	RESEARCHER	
201	1	1	2	1	1	1	
202	1	1	2	1	1	1	
203	1	1	2	1	1	1	
204	1	1	2	1	1	1	
205	2		1	4	2	2	

SCORING KEY:

1 - Being there
2 - Support
3 - Empathy
4 - Communication
5 - Time/Helping
6 - Reciprocity