A Dissertation

EXPLORING THE CLINICAL PRACTICE OF NURSE PRACTITIONERS

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Karen A. Brykczynski

Dedication

To the Memory of

Emil S. Brykczynski

1857 - 1943

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ABSTRACT

Both the acceptance and competence of nurse practitioners have been demonstrated in extensive studies of the medical aspects of this expanded nursing role. The less measurable aspects of clinical expertise and disciplinary distinctions have been difficult to capture because of their complexity and contextual nature. The purpose of this study is to provide a contextualized account of the actual clinical practice of experienced nurse practitioners. This study employs Patricia Benner's (1983, 1984) research on the nature of clinical nursing expertise as a model.

This study uses hermeneutical phenomenology to describe the knowledge embedded in the clinical practice of nurse practitioners. The sample consisted of 22 experienced nurse practitioners in 4 hospital-based ambulatory care settings. Data collection consisted of small group interviews with nurse practitioners, participant observation of patient visits, individual interviews of nurse practitioners, and a brief demographic questionnaire. A major feature of this research approach is the maintenance of the situational context. The unit of analysis is specific clinical episodes. A total of 199 clinical situations comprised the text. Narrative accounts of clinical situations, transcribed

interviews, and field notes were systematically analyzed using an interpretive approach. Selected interpretations were later validated with participants.

This study extends and expands Benner's research (1983, 1984) and contributes to knowledge development in nursing in the following ways: 1) the validity of the domains of nursing practice is supported for nurses practicing in expanded roles in ambulatory care; 2) an additional domain of nursing practice is described for ambulatory care and additional competencies are identified; 3) understanding of the aspects of practical knowledge is enhanced by description of exemplars and themes from the clinical practice of nurse practitioners; and 4) the concept of coaching is broadened and applied to common health and illness concerns encountered in ambulatory care nursing practice. Study findings suggest that nurse practitioners can provide health care management for the majority of patients' complaints with physician consultation. The typical style of nurse practitioner practice described in this study is characterized by judicious use of high technology and promotion of safety and acceptability of care through careful monitoring and teaching which may reduce complications and frequency of hospitalization.

Patricia E. Benner, Chair

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CHAPTER I

INTRODUCTION

Devaluation of nursing practice by both practicing nurses and nurse educators is giving way to a an era of keen interest in clinical practice. Bedside nurses who once delegated nursing care to assistants and functioned more as ward managers than care providers are returning to the bedside as primary care nurses, critical care nurses, and clinical specialists. The present fervor over the issue of nurse faculty practice is an example of renewed inquisitiveness about clinical practice. Dickoff, James, and Weidenbach (1968) assert that nursing practice must be taken seriously and studied to promote awareness of the complexity of clinical nursing. Benner (in press-a) reaffirms this assertion and argues for "a return to the systematic study of our practices and of health, illness, and suffering" (p. 19).

Background of the Study

Benner (1983) states that "clinical expertise has not been adequately described or compensated in nursing" (p. 41). Benner and Wrubel (1982) point out that "neither the nature of skilled knowledge nor the relevance of experience to its acquisition is widely understood" (p. 11). Deep understanding develops "after vast experience with concrete real situations in a specific problem domain" (Dreyfus, S. E. 1983, p. 60). It is important to clarify that this stance

does not suggest a return to former notions of decision making in nursing as a mysterious intuitive process.

According to McCain (1965), if nursing care delivery cannot be described in precise, systematic procedural terms then it is not scientific. It is not a simple either/or situation. Instead, two forms of knowledge are believed to be involved in clinical practice, i.e., practical "knowing how" and theoretical "knowing that" (Kuhn, 1962/1970 and Polanyi, 1958). As Benner (1983) explains, according to this conception clinical knowledge develops when theoretical knowledge is applied, refined, and extended in practical situations.

Mallick (1981) concurs with McCain's position and advocates attention to the development of assessment tools that are precise, systematic, and complete. Once these tools have been developed and tested, they should be applied in practice with rigorous adherence to scientific standards to assure that nursing care is based on data and not intuition. This stance illustrates the prevalent misconception that because novices need abstract, precise, procedural details for learning new skills that the practices of experienced clinicians must also conform to such specific, systematic methods. Benner (1985b) describes the more holistic practical knowledge of experts:

> All of knowledge is not necessarily explicit. We have embodied ways of knowing that show up in our skills, our perceptions, our sensory knowledge, our ways of organizing the perceptual field. These bodily perceptual skills, instead of being primitive and lower on the hierarchy, are essential to expert human

problem-solving which relies on recognition of the whole.

Benner (1983) points out that one of the areas to look for practical knowledge is in unplanned practices as nurses expand their skills. She states that "perceptions and clinical judgments are altered as a result of acquiring a new skill, yet these changes will continue to go undocumented and unrecognized unless nurses study these changes and the resultant 'know-how' that develops in their own practice" (Benner,1984a, p. 11).

The nurse practitioner practices in an expanded role for which there is little precedent for action. There are both planned and unplanned components to nurse practitioner practice. Study of nurse practitioner practice in ambulatory care offers an opportunity to highlight central aspects of effective nursing practice since it professes to involve: 1) family orientation, 2) collaboration, 3) longterm, continuous association with essentially stable ambulatory patients, 4) person-centeredness, and 5) comprehensive care incorporating health maintenance and promotion, and illness detection, treatment, and prevention (Hochheiser, 1974). Thus, nurse practitioner practice constitutes a potentially rich study area for uncovering practical knowledge with significance for nursing.

This new provider role, which has been surrounded with controversy since its inception in nursing, is currently the focus of heated debates in both nursing and medicine with respect to its substitutability for or complementarity to

the physician in primary health care (Billingsley & Harper, 1982; Gortner, 1982; & Spitzer, 1984). This debate over complementarity or substitutability focuses on the comparison of nurse practitioner practice with medical practice and fails to describe nurse practitioner practice in its own terms.

Problem Statement

The knowledge developed in clinical practice as nurse practitioners expanded their skills in ambulatory primary care delivery has not been investigated. The numerous studies of nurse practitioners for the twenty years since the inception of the role have focused on the medical aspects of the care provided. There is no clear sense of the additional dimension the nurse practitoner contributes to traditional primary care (Weston, 1975). The overwhelming majority of studies indicate that there are no differences between nurse practitioners and physicians in the content or quality of primary medical care provided (Prescott & Driscoll, 1979). The few studies that suggest differences lend support to the idea that there is an important contribution by nurse practitioners in primary health care in terms of improved patient outcomes,broadened scope of services, enhanced continuity, and increased efficiency and effectiveness of resource use (see Lewis, C. E., Resnick, B. A., Schmidt, G., & Waxman, D., 1969; Ramsay, J., McKenzie, J., & Fish, D., 1982; Runyan, J. W., Jr., 1975; and

Schulman, J., Jr., & Wood, C., 1972).

Yedida (1981) suggests that comparative studies reveal more similarities than differences between nurse practitioners and physicians because they emphasize measurable features of practice, i.e., the most common denominators. Less formalizable aspects such as the perspective of the nursing discipline acquired through professional socialization and clinical experiences, the predominantly feminine perspective on caring of the overwhelmingly female profession of nursing, and situational and relational aspects of patient care elude quantification and precise procedural description. Naturalistic qualitative description is needed to uncover these less formalizable aspects of clinical nursing practice.

Purpose of the Study

The purpose of this study is to provide a contextualized account of the clinical practice of nurse practitioners to uncover knowledge embedded in clinical practice. Interpretations are presented with substantial narrative detail to enable readers to formulate their own interpretations and gain an understanding of the clinical skills and knowledge of nurse practitioners. Study of the actual practices of this "hybrid nurse" the nurse practitioner should enhance understanding of the similarities and differences between nursing care and medical care, however, a definitive formal description of distinctions between nursing practice and medical practice

is not the aim of this study.

The actual practice of nurse practitioners must be studied to enhance understanding of nursing practice in ambulatory health care delivery. An important point of clarification here is that nurse practitioners just happen to be the group of nurses chosen for this study, other groups of nurses can be and have been studied in similar fashion (Benner, 1984a; Gordon, 1984; & Fenton, 1984). Benner(1985c) delineates five purposes of study of Know-how and the knowledge embedded in practice which include: 1) theory development, 2) identification of knowledge gaps, 3) identification of new knowledge, 4) increasing understanding of embodied intelligence, and 5) increasing understanding of human expertise. This study is designed for these purposes.

According to Anderson (1979), "the area of nursing in greatest need of creative research today is that which is most difficult to concretize and measure, specifically the relating--the mutuality--that occurs between nurse and client" (p.44). As Benner (1984a) states "the nurse-patient relationship is not a uniform professional blueprint but rather a kaleidoscope of intimacy and distance in some of the most dramatic, poignant and mundane moments of life" (p. viii). She points out that "relational, interpretive, and coaching functions of nurses are increasingly recognized as central to patient recovery and health promotion" (Benner, 1984a p. 145). Benner comments further that involvement,

commitment, experience, and continuity contribute toward the effectiveness of clinical nursing practice. This stance argues that in study of clincal practice the relational and contextual aspects must be presented. An interpretive approach is particularly appropriate for uncovering the knowledge implicit in the practices of a cultural group, in this case, nurse practitioners.

Significance

The significance of the proposed study is that it allows for interpretation of the actual practices of the nurse practitioner. It is directed toward enhancing understanding of the practice of nurse practitioners, uncovering the knowledge and skill embedded in their clinical practice, and highlighting their potential contribution to ambulatory health care in the United States. The nurse practitioner has been studied extensively and repeatedly in terms of the medical aspects of the role. Less is known about the unique nursing aspects of this role. This interpretive study contributes to knowledge development in nursing and sheds light on subtle aspects of clinical expertise and disciplinary distinctions.

CHAPTER II

RELATEDLITERATURE AND INTERPRETIVE FRAMEWORK

Literature reviewed for the background to conceptualize this study included: primary care, compliance, decision making and judgment, and provider-patient relationships. Research literature on nurse practitioners and clinical judgment is selected as particularly relevant for this study. Review of significant nurse practitioner studies is followed by review of research on clinical judgment.

Nurse Practitioner Research

The competence and acceptance of the nurse practitioner have been demonstrated by numerous studies (Edmunds, 1978; Gortner, 1979; Prescott & Driscoll, 1979). Interest in investigation of the contribution of the nurse practitioner to care derives from controversy in nursing over the dimensions of the role and the predicted physician surplus (Billingsley & Harper, 1982; Mauksch, 1975; & Rogers, 1975). The focus of the majority of the voluminous studies of the nurse practitioner has been the medical components of the role (Diers & Molde, 1979; & Williams, 1975). The complexity and social significance of nurse practitioner practice are scarcely recognized apart from substitution for medical practice. Areas wherein nursing is thought to make a particular contribution to primary care that have been suggested for study include:active patient involvement, psychosocial aspects and lifestyle issues, eliciting the

patient's perception of the situation, collaborative planning, and teaching. (Diers, 1979; Jacobs, 1980; & Lewis, 1980).

Few studies have attempted to clarify the nursing component of the practitioner role. In their review of nurse practitioner-physician comparison studies, Prescott and Driscoll (1979) discuss several conceptual and methodological issues associated with these studies. They comment that failure to include criteria that reflect the nursing component of the role is a major drawback. Physician care has been the implicit standard for assessment of quality of care rather than more standardized criteria. Measurement of outcome variables are particularly problematicforpatients who are well or who have chronic conditions--thebulk of nurse practitionerpatients. Data regardingsetting variables are often absent from studies, yet factors such as time for visits, range of services provided, history and philosophy of the unit, and others may influence outcome greatly (Williams, 1975).

The federal study reported by Cheyovich, Lewis, and Gortner (1976) represents an early attempt to explore the scope and nature of the nurse practitioner role in primary ambulatory care. Comparison of nurse clinic care with traditional clinic care, an original goal of the project, was abandoned as too ambitious in scope to be realized in the study. The practices of two nurse practitioners managing primary care for 121 patients were described. The

descriptive information was gathered through use of an encounter form which included data on the number and length of visits, frequency and type of procedures requested, and specific actions taken during patient visits, as well as, consultation and referral practices. A major study finding was that the nurse practitioners demonstrated the ability to provide primary care to patients with a wide variety of medical diagnoses or problems. Of particular interest to this investigator is the fact that although specific informationon nurse-patient encounters is presented in summarized, quantified form, the investigators report that through their discussions during the course of the project they began to get an idea about what they termed "the elusive aspects of process . . [which they describe, as follows]:

> the characteristics of nurse management in this setting appeared to contain the following elements during most of the visits: (1) An informal agreement, of sorts, was made with the patient; this included discussion of his major problems, plans for the patient's participation in their resolution, and a pledge for joint review of progress. (2) There was frequent monitoring of the patient's health state and feedback to him of this information. (3) There was considerable health education and counseling. (4) There was some coordination of clinic services appropriate to the patient's requirements (p. 49).

Recurring patterns occurring in the encounters were inductively derived by the investigators through group discussion of observations and findings. This process has much incommon with the interpretive method used in the research study reported here.

The Nurse Practitioner Rating Form (NPRF) represents an instrument developed to quantify both the nursing and medical components of the role (Goodwin, Prescott, Jacox & Collar, 1981; Jacox, Prescott, Collar & Goodwin, 1981; & Prescott, Jacox, Collar, & Goodwin, 1981). The rationale for the development of the NPRF is expressed by the authors as follows, "the unique combination of care and cure functions distinguishes the nurse practitioner role from that of other primary caregivers and from nurses functioning in more traditional modes"(1981, p. 224). Jacox and associates (1981) state that "the NPRF is designed to measure aspects of the direct client care component of the nurse practitioner role" (p. 53). It is said to yield descriptive information which can be used to identify patterns of practice. The instrument allows for collection of frequency data and calculation of percent time spent in various assessment and management activities. However, percent time does not necessarily reflect the significance or meaning of the activity. Descriptive accounts of the content and nature of the interactions would be helpful for assessing the meaning of the activities. The reliability studies conducted give satisfactory evidence for the reliability of the activity and content portions of the instrument, but evidence for the reliability of the global scales of nurse practitioner communication is scanty.

The arbitrary emphasis on teaching as the major distinction between nursing and medical care components is a

particular weakness of the conceptualization of the instrument. The reliability and validity of observer ratings are threatened by the questionable differentiation of teaching activities into the following three categories specifically, providing: 1) facts; 2) advice, directions, or instructions; and 3) explanation. A further problematic aspect of the instrument is categorization of social visiting between the nurse practitioner and client as "other". Since personalization of care is regarded here as an essential rather than a peripheral aspect of care it would be particularly important to know the content and meanings attributed to these social visiting aspects.

Another study designed to identify the nursing component of nurse practitioner practice was conducted by Bibb (1982). It compares nurse practitioners and physicians on free responses to simulated case studies. In the study, 15 nurse practitioners and 11 physicians were provided with brief written clinical situations (2 pediatric; well baby and upper respiratory infection (URI) cases, and 2 adult; urinary tract infection (UTI) and headache) to which they were requested to respond with written proposed plans for management. Management plans were classified into the following five categories: problem assessment, diagnostic plan, therapeutic plan, health education, and followup.

Findings indicated that when analyzed by item, there were no significant differences between nurse practitioners and physicians on any single item. When grouped into

categories, the nurse practitioners were found to include significantly more health education and followup in their management plans than did physicians.When data were grouped according to cases, the nurse practitioners were again found to include more health education and plans for followup in their proposed management plans. Bibb concludes that the results provide support for the caring focus of nursing practice. A study of this type, however, provides data on the performance of care providers on simulated cases which can be analyzed for similarities and differences. The validity with regard to actual care situations is of course open to question because of the lack of commitment and sense of salience in simulations that are inherent in actual health care situations.

Yedida's (1981) qualitative study of the content of the family nurse practitioner (FNP) visit adds an additional dimension to attempts to describe the nurse practitioner's contribution to care. His study was based on firsthand observation of actual practitioner-patient encounters.The findings indicated that although teaching and counseling appeared to be important to the FNPs, the extent to which these aspects were integrated into the care provided was limited by setting factors, such as time limits for visits and existence of treatment protocols, that were separate from training and competence factors. These results provide additional support for claims that setting factors, such as time for visits, philosophy of health care, collaboration

among providers, reimbursement restrictions, etc. influence the degree to which "the nurse" in the nurse practitioner can be demonstrated to show up in actual practice settings (Carter, 1979; Hochheiser, 1974; Moscovice, 1978; & Williams, 1975).

Martin's (1983) comparative study of resource use by family nurse practitioners (FNPs) and family practice physicians (FPPs) using two tracer conditions (hypertension and pharyngitis) found that "FNPs had lower resource use, though their patients were more complex and their care outcomes were equivalent or better than FPPs" (p. 1 abs). Martin concluded that FNPs offer opportunities for cost savings beyond decreased training and salary costs to more economical health care management. The study suggests that there are important differences betweeen FNP and FPP care. These differences may be used to support the claim that nurse practitioners should play a central role in providing primary health care.

Davidson and Lauver (1984) studied role delineation and complementarity of nurse practitioners and physicians using patient vignettes. Nurse practitioner/physician pairs individually rated nine patient vignettes according to how appropriate it was for the nurse practitioner or the physician to spend time with such a patient. Each vignette was rated for both nurse practitioner and physician appropriateness. Significant differences were found between perceived roles for nurse practitioners and physicians for

six of the nine vignettes.

Vignettes suggesting the need for psychosocial support and health education were perceived as highly role appropriate for the nurse practitioners while vignettes depicting high risk physical conditions were perceived as highly role appropriate for the physicians. The researchers concluded that nurse practitioner and physician role perceptions were largely complementary. Disagreement over role appropriateness for three of the nine vignettes was taken as evidence of the existence of role overlap. The validity of the findings is open to question because of the ambiguous nature of the phrase "spending time with that patient." There is no way of determining how this was interpreted by study subjects. In addition, as with all simulations, the validity of the findings with respect to actual clinical situations is unknown.

Clinical Judgment Research

Clinical judgment has been studied extensively in many fields including psychology, medicine, management, and nursing. Decision theory and information processing theory constitute the two major perspectives underlying judgment research. Though there are many differences between these perspectives, there are several points of convergence. Both perspectives maintain that early hypothesis generation is a strategy employed to adapt to the cognitive limitations of "bounded rationality" (Simon, 1957). There is agreement that judgment proceeds in a linear sequential fashion from holistic to analytic components with no discontinuities between steps. It is also widely held that the process of judgment is generally assumed to be the same regardless of the discipline and differences in content. Thus, it is readily concluded that expert judgment can be analyzed and explained in formal, abstract terms since it is assumed to differ from novice judgments only in quantity and therefore in numbers of variables with different weights (complexity), but not in kind or quality.

Simon's (1957) principle of bounded rationality is basic to understanding research based on either information-processing theory or decision theory since it represents an area of convergence between the two perspectives. According to the principle of bounded rationality, there are limits to the human capacity for rational thought. Short term memory is believed to be the most limiting aspect. Elstein (1979)

explains that "given the limited size of working memory, one is literally required to process data serially, to select data carefully, to represent a clinical problem in simplified ways, and to work as rationally as possible within a simplified representation" (p. 18). Acceptance of this principle leads to search for the ways that the mind simplifies complex problems and the difficulties, such as errors and biases, that these simplifications result in as the central focus of research using formal models. If human beings are not restricted to "serial thinking," rules, or representational thinking (Dreyfus & Dreyfus In Press) then research on simplification strategies based on these assumptions will produce only negative findings as has been the case thus far (see Simon, 1979).

Information-processing theory derives from the work of Newell and Simon in artificial intelligence. Newell and Simon's (1972) theory of human problem solving developed from use of a method called process tracing, which involves verbal report of one's thinking processes while solving a problem. The procedure is based on the ideas that thinking processes are sequential and can be made explicit. Problem solving behavior is conceptualized as an interaction between the problem solver (an information processing system) and a task environment, which is the specific task designed by the experimenter. A general model of diagnostic problem solving has developed which constitutes a paradigm for studies within the information-processing framework. Limitations of

studies within this framework include the posssibility that verbalization alters the thinking process, the possibility that the subject is unable to clearly verbalize his thinking processes, and that there are unspecifiable aspects.

The hypothetico-deductive approach is the central feature of this general model of diagnostic problem solving. According to this approach, the diagnostician generates hypotheses early as a strategy for adapting to the limits of bounded rationality. The concept of early hypothesis generation constitutes an area of convergence between information-processing theory, decision theory and the Dreyfus(1982) situational model.Accordingtoinformation-processing theory, early hypothesis generation is seen as a way of coping with the limitations of short-term memory. In the Dreyfus model, early hypothesis generation is conceived of as rapid honing in on relevant aspects of the situation in terms of holistic perception, salience, and recognitional ability.

Mathematical models are utilized in studies based on decision theory to prescribe optimal judgment processes. Brunswik's lens model (a regression model), Bayes theorem, and Utility theory constitute three general approaches used in the mathematical modeling of clinical decisions. The lens model uses probabilistic interrelations between human and environmental components to represent the judgment situation. According to Wallsten (1980), the thesis of the multiple regression model suggested by Brunswik in 1940, is

that "the decision maker's final (quantitative) judgment concerning criterion variables is a linear function of the cues or information upon which the judgment is based" (p.215-216).

The lens model forms the basis for the series of studies by Hammond, Kelly and associates (1964, 1966a, 1966b, 1966c, & 1967) of task analyses of judgment and inference in nursing. This classical series of studies provides support for the cognitive complexity of inference in nursing. Kelly (1964) states that the research on clinical inference in nursing "is directed towards understanding and subsequently improving that which we believe to be the heart of professional nursing--observing the patient, making inferences based on these observations and then taking appropriate action"(p. 314). Hammond (1964) explains that, according to the lens model, there is a state of the patient (SOP) which the nurse needs to make an inference about, based on uncertain cues, and then take action on. He comments that uncertainty, ambiguity, and complexity surround clinical inference in nursing since there are multiple cues to a patient state and multiple means to achieve particular goals.

The initial attempt to select five states of patients about which nurses routinely make judgments which could be quantified in relation to the cues was abandoned by the investigators as impossible. Observations in clinical areas, textbook review, interviews and conferences with faculty and

nurses, and review of medical and nursing films resulted in the finding that "no state of patient was found which did not depend on a further subjective judgment for verification" (Kelly, 1964, Part III, p. 321). Thus,:

> it was decided to undertake an empirical analysis of: (a) the kinds of inferences and decisions nurses make about patients, (b) the cues which nurses use as a basis for such inferences, and (c) the actions which they take as a consequence of their inferences" (Kelly, 1964, Part III, p. 321).

The first field study consisted of a 24-hour survey conducted on several hospital units to identify common cognitive tasks along with their distinguishing cues that the nurse confronts. The study generated 381 nurse-patient incidents. It was determined that nurses are involved in a large number of widely varied and complex cognitive inference tasks (Hammond, Kelly, Schneider, & Vancini, 1966a).

A second field study was undertaken with a more concentrated focus. It involved data collection from only those nurse-patient incidents which involved patient complaints of abdominal pain following abdominal surgery. Many nurses and hospitals were sampled. It was found that at least 17 different actions were taken in the 212 incidents of post-surgical abdominal pain generated by the study and 165 cues were reported. Analysis of cue dependability revealed that "on the average no single cue transmitted a significant amount of information" (p. 138).

The data from these field studies was incorporated into paper and pencil tasks for further study of nursing

inference. Six nurses were presented with 100 patient descriptions randomly chosen from the 212 incidents generated in the previous study and were requested to infer the state of the patient in an attempt to identify basic information units of the cognitive tasks (Hammond, Kelly, Schneider, & Vancini (1966b). Again, it was found that no single cue had any unequivocal interpretation. A search for stability of particular cue configurations was unsuccessful also. It appeared that cue interpretation depended on the particular situation.

Another study was conducted to attempt to identify information-seeking strategies used by nurses (Hammond, Kelly, Castellan, Jr., Schneider, & Vancini, 1966c). Five nurses were presented with 12 cases that were replicas of those collected in the second field study. Nurse-subjects were requested to select information one cue at a time and to estimate the probability of the value of that particular cue. A subsequent study was conducted to analyze the process by which the nurse revises her judgment of the state of the patient when confronted with new information (Hammond, Kelly, Schneider, & Vancini, 1967). This study involved comparison of the nurses sequential revision of her judgment of the state of the patient (in the form of probability estimates) when confronted with new information with that made by a mathematical formula.

It was found that the nurse-subjects altered their probability estimates in a consistent manner, but that their

revisions differed markedly in magnitude from those made by the mathematical model. The nurse-subjects were found to be cautious in revising their probability estimates, which is a consistent finding in studies in this area. The investigators point out the lack of fit between the complex nurse-patient situation and the simple, sequential tasks necessary to employ the mathematical model and question the value of this method as appropriate for such study. Tanner (1983) summarizes the important contribution of this series of studies, as including "the recognition of the complexity of the judgment process, the identification of variation among subjects, and the provision of a beginning framework for analyzing task complexity" (p.6).

Decision theory has been utilized in many fields and was first introduced into medical judgment research by Ledley and Lusted in 1959. Albert (1978) points out that states of nature, actions, outcomes, probability, and utilityfunctions constitute the five main components of decision theory. He states that the fundamental components of a decision are "that each alternative must be examined with regard to its value and the probability of its occurrence" (p. 364). "Decision analysis is a method for systematically assessing values on a common scale (formally called utility) and for choosing an action that maximizes expected utility" (Elstein & Bordage, 1979, p. 350). Thus, utility theory and decision theory converge in decision analysis.

According to Albert, utility theory is the cornerstone of decision analysis. Tanner (1983) explains that:

> utility theory describes the selection of an action or set of actions based on a subjective assignment of value to probable outcomes of those actions. It is designed to optimize decision making under conditions of risk--prescribing the choice that maximizes expected utility or value (p. 10).

Problems with the claim that all outcomes can be rated with respect to each other are the large amount of person to person variability in utility designation and the difficulty with "intangibles, such as life, death, pain, and relief that seem to defy comparison with more mundane matters such as money, time lost from work, temporary functional impairment, and so on" (Albert, 1978, p. 376).

Grier's (1976, 1979) studies of clinical decision making in nursing are based on decision theory. Grier (1976) studied 21 visiting nurses (VNA) and 29 medical-surgical hospital nurses using an instrument that consisted of 4 written patient situations (2 patients for each of 2 problem situations). Three nursing actions and 7 outcomes were provided in tabular form and the nurse subjects were requested to rank the importance of the action for the patient situation and to estimate the probability of the outcome resulting from the action. "The first-ranked action was considered the intuitive or judgment decision" (p. 107). The expected values (EVs) of the actions were later computed from the probabilities and values that the nurses assigned to the outcomes. A total of 185 decisions was analyzed.

Data were analyzed by determining the amount of agreement between the highest EV and the first-ranked action and the amount of agreement between the ordering of the EVs and the ranking of actions. The finding that the nurses chose actions with the highest EV in 60 percent of the 185 decisions was interpreted by Grier to indicate that "a systematic and objective process was used in making most of the decisions" (p. 108). Grier surmises that the fact that the model of decision making tested fit more than half of the decisions indicated that such a model is applicable to selecting nursing actions. She further concludes that increasing nursing skills in using an objective and systematic process for making decisions will result in improved care. In discussing the flaws involved in these inferences made by Grier, Tanner (1983) points out that there was no attempt to ascertain whether or not actions chosen would result in desirable outcomes. This study provides data with questionable applicability to practice since more than one outcome may result from a particular action and more than one action may produce the same outcome.

Grier and Schnitzler (1979) conducted a study of risk taking by 53 nurses and 22 non-nurses(academic staff or students in medical dietetics) involving gain and loss of money in 5 games. It was found that "a nurse's propensity to risk appeared to depend on the situation and on the nurse's educational level" (p. 186). Support for the idea that the

decision situation affects risk taking is common in studies of decision making in situations of uncertainty. Situation variables identified as important in risk taking include whether outcomes are dependent on chance or skill; whether or not it is a simulation; and whether or not outcomes are meaningful.

Five games were devised in this creative study conducted to assess the importance of these situational variables. A nursing skill game involved gambling on one's ability to apply the proper amount of pressure for cardiopulmonary resuscitation. A number judgments game consisted of judging if the average of two series of numbers was greater or less than zero. A nursing judgments game involved the formulation of nursing diagnoses for 2 separate nursing problems with clues presented at a cost of two cents each. A patient data game involved determining how much information the subject desired prior to taking a test about the patient's needs and indicated nursing strategies.

The findings from the Grier & Schnitzler (1979) study indicated that in both the chance and nursing skill games, the more highly educated nurses accepted greater risk than less educated nurses and non-nurses and that associate degree and diploma nurses were more conservative than either non-nurses or more highly educated nurses. This might be more a reflection of values and attitudes toward gambling than actual risk-taking in a clinical situation. The study assumed that all subjects shared the same attitudes and

values toward gambling, yet this was probably not the case. The validity of the findings are questionable given the probability that the subjects differed on their values toward gambling since this violates the value neutrality assumption of Bayes Theorem.

The researchers found that nurses with advanced education were better decision makers in the games of chance, nursing skill, and numbers while there were no differences between nurses according to educational level in the games involving the amount of information desired before taking a patient needs test and making nursing diagnoses. It would be informative to have data regarding the experience of the nurse subjects. Interpretation of the findings in terms of implications is complicated further by the fact that the study involves simulations. Since it is difficult to design realistic simulations, the participants may not have been sufficiently engaged or solicited by the simulations thereby making generalization of findings to actual situations problematic.

In a study of diagnostic accuracy, Aspinall (1976) provided a written case study of a patient who exhibited sudden deterioration in cognition to 187 hospital nurses and requested a list of all possible problems that might be responsible for the situation. A panel of experts agreed on 12 possible problems. The study subjects identified from one to nine problems with a mean of 3.4. It was found that baccalaureate and masters prepared nurses listed more

diagnoses than diploma and associate degree nurses. It was found that nurses with less than 2 years and from 2 to 10 years of experience listed more diagnoses than the group with 10 or more years of experience. Other reported findings were: 1) the most likely diagnosis was missed by 21 percent of the subjects; 2) the second most likely diagnosis was missed by 39 percent of the subjects; and 3) 10 percent failed to include either the first or second most likely diagnosis. Although experience was included in analysis of the number of diagnoses listed, it was not incorporated into the analysis of diagnostic accuracy. Based on these results and analysis of the problems identified, it was concluded that the nurse-subjects lacked theoretical knowledge of possible diagnoses, a systematic method for evaluation of cues, and the ability to apply these to problem solving in nursing practice.

Aspinall (1979) conducted a second study with 30 triads of nurses to determine if use of a decision tree would improve diagnostic accuracy. It was concluded that there was significant improvement in diagnostic accuracy in the experimental group that used the 18 decision trees over the other two groups, i.e., the control group A which received only the written case study and group B which received the case study and a list of 18 possible disease states that could produce the behavior in a general population of patients similar to the case study patient. Although there were 18 possible diagnoses, the expert panel determined that

enough information had been provided to eliminate all but 6 diagnoses (5 of which were physiological and one of which was psychosocial) and these 6 diagnoses were considered to be the correct ones.

Aspinall's interpretation of the data from these two studies leads to unfounded conclusions. In the first study there is information provided regarding the relationship between accuracy and the number of diagnoses listed. The number of diagnoses listed is analyzed in terms of education and experience, however, correctness of diagnosis is reported only in terms of the percent failing to list either the first or second most likely diagnosis or both with no data analysis in terms of education or experience. Yet, Aspinall concludes that nurses with more experience do worse (where worse means fewer numbers of appropriate diagnoses, not the selection of the two most probable diagnoses) and that nurses with more education perform better (i.e., generate more possible diagnoses). Analysis of diagnostic accuracy in terms of the education and experience of the subjects would have strengthened the study.

In the second study, Aspinall states that in many instances nurses reported that they relied on their experience rather than the decision trees in listing their diagnoses. This suggests that "the 'take' of the independent variable" (Cook & Campbell, 1979, p.60) is questionable and leads one to question the validity of the interpretation of the findings. A further problem in interpreting the findings

of the second study is the failure to report specifically whether even if a nurse only listed one of the possible diagnoses if it was the most likely one or not. In other words, there was more attention paid to mean numbers of correct diagnoses and standard indices of accuracy than selection of one most correct diagnosis. Unless specific instructions were given to list as many plausible diagnoses as possible, one would not expect all 12 possible diagnoses to be listed. It is difficult to assess the relevance of simulations such as these for application to actual practice situations where the context of the situation limits possible interpretations and makes struggling with 12 possible diagnoses less likely.

Tanner (1983) points out that studies based on decision theory use mathematical models to prescibe optimal judgment processes while studies based on information processing "rely on introspective verbal accounts to describe the actual clinical judgment processes employed" (p. 23). Tanner (1977) studied diagnostic strategies used by 54 senior baccalaureate nursing students who responded to 5 videotaped vignettes of hospital patient situations. It was found that one to six hypotheses were generated immediately after the videotape. There was a slight positive relationship between diagnostic accuracy and the number of early hypotheses generated. Inclusion of the correct diagnosis among the early hypotheses was the major determinant of diagnostic accuracy. This finding lends support to the widely held

belief that early hypothesis generation is a commonly employed diagnostic strategy that is appropriate for solving problem situations in nursing.

Aspinall and Tanner (1981) apply the concepts of heuristics and biases identified by Tversky and Kahneman (1974) to their discussion of potential errors in the diagnostic process in problem solving in nursing. Errors described include:

> 1) failure to associate initially available data with plausible diagnostic hypotheses; 2) failure to include the accurate diagnosis in the initial set of hypotheses considered; 3) overestimating the probability of one hypothesis because of greater ease of recall, recent experience, etc.; 4) failure to use disconfirming data; and 5) overestimating the reliability of data or the information value in either confirming or disconfirming hypotheses (p.12).

A problematic aspect of transferring these findings from the Tversky and Kahneman studies and applying them to nursing is that these studies are derived from simulated gambling situations conducted primarily with college students in classroom settings. Ebbesen and Konecni (1980) point out that "various cognitive limitations and biases that have been demonstrated in laboratory decision tasks often seem to be avoided in real-world settings" (p. 40).

Gordon (1972, 1980) studied information-seeking strategies used by nursing graduate students in making nursing diagnoses. The subjects were instructed to seek information to derive a diagnosis when presented with a brief clinical situation in two task conditions; one with unlimited information-seeking and the other limited to 12

questions. It was found that mixed strategies were used by almost all subjects. Successive scanning, simultaneous scanning, and predictive hypothesis testing were the strategies derived from Bruner, Goodnow, & Austin, (1956) that Gordon observed for. A pattern of use of predictive hypothesis testing initially that was followed by single hypothesis testing was described in the analysis of the data. Inaccuracy of diagnoses was associated with the unlimited information conditions and prolonged hypothesis testing. These results suggest that early hypothesis testing may be more effective than excessively comprehensive data collection.

Tanner points out that research on clinical judgment from both the decision theory perspective and the information processing perspective is analytic in that isolated aspects of the judgment process are described. Within both perspectives, it is generally agreed that "the clinical judgment process is comprised of selecting alternatives, gathering information to reduce uncertainty about the alternatives, and selecting the most likely diagnosis or the optimal management plan"(1983, p. 24). These analytic approaches and "particularly the use of simulation, are constrained in their capacity to lead to an overall or gestalt view of the judgment process--as it is actually used in practice" (Tanner, 1983, p. 28). In their review of simulated and real-world studies of bail setting, sentencing of felons, driving behavior, and judging of

swine, Ebbesen and Konecni (1980) suggest that "in the area of decision making, the really important truths are to be found in the real world rather than in laboratory simulations, no matter how high the face validity of the latter might be"(p. 38). They assert that "one ought to be required to show that the simulations can mimic data from various aspects of the real world before claiming that one is tapping basic processes" (p. 38).

Tanner (1983) refers to Benner's naturalistic study of actual clinical situations in nursing as "a promising approach to the study of clinical judgment" (p. 25). In an effort to uncover the knowledge embedded in clinical practice, novice and expert nurse clinicians were studied in acute care settings as part of a large grant supported project entitled Acheiving Methods of Intra-Professional Consensus, Assessment, and Evaluation (AMICAE) (Benner & Wrubel, 1982; Benner, 1983; & Benner, 1984a). Participant observation and small group interviews were data gathering methods used in the interpretive approach to investigation. Benner (1982) explains that "an interpretive strategy is synthetic, rather than analytic, and focuses on meanings as a way of organizing and describing practice"(p. 306). Benner states that:

> instead of a long list of possible meanings or functions, understanding the situation limits the possible meanings of behavior into manageable and relevant wholes. Therefore, the interpretive approach always relies on the particular context of the situation, that is, the timing, meanings, and intentions of the particular situation (1982, p.306).

Application of the interpretive approach to study of clinical judgment in nursing allows for understanding of nursing practice in the naturalistic setting, and provides a way of describing knowledge embedded in practice.

Benner and Wrubel (1982) applied the Dreyfus (1982) model (see Table 1 p.34) of the acquisition of expert judgment skills to study of clinical expertise in nursing. The model developed by the Dreyfus brothers from studies of airline pilots and chess players posits that the deep understanding that distinguishes experts from novices and humans from computers stems from the human "ability to recognize similarities in situational patterns" (Dreyfus, 1983, p. 56). The model depicts skill acquisition as progressing from abstract, detached, analytical reasoning to concrete, involved, holistic reliance upon experience (Dreyfus, 1983).

The levels of skill are dependent on the performer's past experience and knowledge, and the salient aspects of the particular situational context; they are not abstract traits of individuals. Thus, an expert is not an expert in all situations. According to the situationalist conception, there are limits to formalism. There are nonformalizable aspects, such as shared background practices and contextual aspects that cannot be made explicit (Dreyfus, 1972/1979 & Gordon, 1984). Essential insights for understanding the model are that is is situational (context-dependent) and experience-based.

Table 1

The Dreyfus Model of Skill Acquisition

Mental Capacity	Skill Level Novice	Advanced Beginner	Competent	Proficient	Expert
Component Recognition	Nonsituational	Situational	Situational	Situational	Situational
Salience Recognition	None	None	Present	Present	Present
Whole Situation Recognition	Analytical	Analytical	Analytical	Holistic	Holistic
Decision	Rational	Rational	Rational	Rational	Intuitive

Note. Dreyfus (1982, p. 147). See Mind Over Machine by Dreyfus, H. & Dreyfus, S.E. with Tom Athanasiou (in press) NY: Macmillan Free Press for the most recent revision of the Skill Model.

The situational model developed by the Dreyfuses and applied by Benner to nursing provides a comprehensive framework for understanding the practice of nursingsince it regards as essential the nonformalizable aspects, such as commitment, tradition, practices, skills, and connoisseurship of experienced clinicians and includes the abstract, formal, analytical aspects as well. The Dreyfus model maintains that expert behavior differs in kind from earlier stages of skilled behavior and can only be understood in holistic situational contexts. Aside from the Dreyfus' account, expert decision making is usually explained as either a kind of mystical intuition or as unconscious because of the rapidity of expert judgment and the inability of experts to verbalize just how they make such judgments. As an unconscious process, expert judgment has been assumed to be swift and unreportable rule following. This traditional analytical assumption has blocked the exploration of alternative explanations and accounts of expert human judgment.

The Dreyfus situational model of judgment is a major departure from the heretofore dominant perspectives in judgment research (decision theory and information processing theory) in four major ways: 1) there are qualitative differences between novice and expert judgment skills; 2) there are discontinuities between the various stages of acquisition and practice of judgment skills; 3) the development of judgment skills proceeds from analytic to

holistic stages; and 4) the nature of judgment skills differs markedly depending on situational contexts. Thus, the Dreyfus model offers an alternative to analytic explanation of human judgment.

Interpretive Framework

This study incorporates the aspects of practical knowledge and the domains and competencies of nursing practice identified by Benner (1983, 1984a) as an interpretive framework for describing continuities and discontinuities of nurse/nurse practitioner practice. It is a situationalist approach to the study of practical knowledge and meanings in the everyday practice of clinicians.

The philosophical background for this approach is Dreyfus' work in Heideggerian phenomenology. This work draws on the ideas of continental philosophers and scientists including: Husserl, Heidegger, Gestalt psychologists, Merleau-Ponty, Polanyi, Kuhn, Rosch, and Taylor. Dreyfus (1979) explains that the "phenomenological account stands in opposition to our Cartesian tradition which thinks of the physical world as impinging on our mind which then organizes it according to its previous experience and innate ideas or rules" (p. 266). Instead we experience "the objects of the world as already interrelated and full of meaning" (Dreyfus, 1979, p. 269-270). Dreyfus states that:

> Transcendental phenomenologists such as Husserl have pointed out that human beings recognize complex patterns by projecting a somewhat indeterminate whole which is progressively filled in by anticipated experiences. Existential phenomenologists such as Merleau-Ponty have related this ability to our active, organically interconnected body, set to respond to its environment in terms of a continual sense of its own functioning and goals (1979, p. 250).

Dreyfus comments that "pattern recognition is a bodily

skill basic to all intelligent behavior" (1979, p. 250). Thus, the body is indispensible for intelligent behavior rather than getting in the way of intelligence and reason. According to Dreyfus, three areas that underlie all intelligent behavior include: 1) the role of the body in organizing and unifying our experience of objects; 2) the role of the situation in providing a background against which behavior can be orderly without being rulelike; and 3)the role of human purposes and needs in organizing the situation so that objects are recognized as relevant and accessible.

Dreyfus (1979) comments that "whatever it is that enables human beings to zero in on the relevant facts without definitely excluding others which might become relevant is so hard to describe that it has only recently become a clearly focused problem for philosophers" (p. 260). Indeterminacy is thought to play a crucial role in human perception. Dreyfus comments that "Merleau-Ponty points out that most of what we experience must remain in the background so that something can be perceived in the foreground" (1979, p. 240).

Merleau-Ponty states that "ambiguity is of the essence of human existence, and everything we live or think has always several meanings" (1962, p. 169). He explains that since we are always in a situation, "we are surrounded and cannot be transparent to ourselves, so that our contact with ourselves is necessarily achieved only in the sphere of

ambiguity" (p. 381). Merleau-Ponty points out that:

> the world is already constituted, but also never completely constituted; in the first case we are acted upon, in the second we are open to an infinite number of possibilities. But this analysis is still abstract, for we exist in both ways at once. There is, therefore, never determinism and never absolute choice (p.453).

Taylor clarifies these points by stating that:

> much of a human being's knowledge of situations and their possibilities is know-how, that is, it cannot be exhaustively unpacked into a set of specific instructions or factual statements, but is a general capacity to generate appropriate actions and therefore, if necessary, the 'instructions' underlying them (see Dreyfus, 1979, p. 260).

An appreciation for the complexity of human beings is essential for understanding Heideggerian phenomenology and its relevance for nursing research. A basic insight is that "minds" and "bodies" are simply concepts in the dominant cognitive view. They are ideas and not real entities. The reification of the mind/body dichotomy has led to the development of separate specialties and separate institutions to care for the artificially isolated problems of minds and bodies. Minds are revered and respected more so than bodies in a hierarchical relation with the result that intellectual pursuits are lauded over physical ones. Maurice Merleau Ponty's (1942/1962) holistic concept of the "lived body" having embodied intelligence is a useful idea for getting beyond the mind/body split. According to this concept, we sense or know things as a kind of recognition through our perceptions. For example, a nurse can determine the quality of a pulse or the tone of a uterus through touch. This is embodied knowledge.

Thus, all knowledge is not necessarily explicit. According to Polanyi (1958) and Kuhn (1970) there are two types of knowledge, specifically theoretical knowledge "knowing that" and practical knowledge "knowing how" which are associated with skilled practices. Practical knowledge is uniquely human. It is the kind of knowledge that computers cannot have (Dreyfus, 1979). It requires a lived body and active engagement in a situation. There is a nonformalizable nature to it. This distinction sheds light on the theory/practice gap so widely referred to in practice disciplines. Practical knowledge requires experience in a situation for its development. Benner and Benner (1979) clarify what is meant by practical knowledge by their explanation that experienced clinicians, for example, have a great deal of knowledge that lends itself more readily to demonstration and communication by way of maxims than precise procedural description.

Dreyfus (1984) argues that human capacities cannot be studied in a context free way because "precisely the contextual understanding in terms of which human beings pick out the everyday objects and events whose regularities theory attempts to predict, is left out in the decontextualization necessary for [formal] theory" (p. 10). He explains that "the meaning of the situation plays an essential role in determining what counts as an event, and it is precisely this contextual meaning that theory must ignore" (p. 11). In other words, "the human sciences ...

find themselves treating as their object what is in fact their condition of possibility" (Dreyfus, H., 1984, p. 7). This is so because human scientists share a background of practices that is not completely formalizable. Dreyfus suggests that if it is true that study of human beings cannot be scientific in the sense of formal theorizing that does not mean that there cannot be disciplined study of human beings. He asserts that there can be systematic accounts of everyday human activities and cites the study of prototypes as an example of such study.

An additional distinction is important for understanding the appropriateness of Heideggerian phenomenology for nursing. Rigid differentiation between arts and sciences in terms of measurability or objectivity has led to classification of heretofore unexplainable skills as art. This has resulted in failure to attend to and systematically study the less quantifiable aspects of nursing care, such as mobilizing hope, energizing active patient involvement, eliciting the support of significant others, and negotiating congruent goals. These aspects of nursing care are commonly lumped together under the rubric of therapeutic communication skills and labeled the art of nursing, thereby assuring that serious, systematic study will not be addressed to them. Engel (1977) advocates systematic study of such aspects as nonverbal communication in psychiatry. He states that:

> nonverbal expressions of affects as gestures, postures, facial expressions and tones of voice, more often evoke

> feelings than stimulate a conscious intellectual response. Hence, although we may differ in how sensitive we may be to the emotional expressions of others, by and large most of us 'feel' before we 'know' what the other person is experiencing and communicating (1977, p. 224)

Engel asserts that attention to explication of these aspects is necessary so that they can be dealt with more objectively. He calls for developing "a scientific typology of gestures, postures, and facial expressions" and establishing relationships to inner feelings and expressions (p. 225). Although his goal of explicitly formalizing interpersonal communication through the development of a decontextualized typology is believed to be impossible by this researcher, nonverbal communication can be described, interpreted, and brought into public discourse (Taylor, 1982).

Assumptions

The nature of nursing is not static, rather it is defined and created in particular dynamic situational contexts. This observation provides an appropriate lead into presentation of the major assumptions of the study reported here. The following assumptions underlie this study:

1) There are no interpretation-free data. Taylor (1982) points out that the assumption of natural science that there is an independent reality whose meaning can be represented by abstract terms or concepts must be abandoned.

2) There are no non-reactive data. This refers to the myth of the monological observer. Taylor (1982) calls for abandoning the false belief of natural science that one can

neutrally observe brute data. Natural sciences have aspired to neutral (value free and unobstrusive) observation of data. This view is no longer deemed tenable as it is recognized that the notion of the neutral observer is not even possible when observing electrons in physics (Heisenberg, 1958).

3) There is a distinction between practical and theoretical knowledge. Practical knowledge cannot be completely formalized as in exhaustive technical procedural descriptions. It lends itself to study by holistic methods. Theoretical knowledge is derived from practical knowledge which is embedded in everyday practices, skills, and background meanings. Theoretical knowledge thus necessarily provides a more simplified view of the practical world (Benner & Benner,1979; Benner 1984a; Dreyfus, 1984; Kuhn, 1970; andPolanyi, 1958).

4) Meanings are embedded in skills, practices, intentions, expectations, and outcomes. They are taken for granted and not necessarily recognized as knowledge. According to Polanyi (1958), a context possesses existential meaning and this distinguishes it from "denotative or more generally, representative meaning" (p. 58). He states that "to transpose a significant whole into the terms of its constituent elements is to transpose it into terms deprived of any purpose or meaning" (p. 63).

5) People sharing a common cultural and language history have a background of common meanings that allows for

understanding and interpretation. Heidegger (1927/1962) refers to this as primordial understanding, after the writings of Dilthey in the late 1800s and early 1900s (1976), which assert that cultural organization and meaning precede and influence individual understanding.

6) The meanings embedded in skills, practices, intentions, expectations, and outcomes cannot be made completely explicit, however, they can be interpreted by someone who shares a similar language and cultural history, and can be consensually validated by the participants and relevant practitioners. Humans are self-interpreting beings (Heidegger, 1927/1962). Hermeneutics is the interpretation of cultural contexts and meaningful human action.

Research Questions

Inquiry for purposes of discovery necessitates a flexible, naturalistic approach. This study is exploratory in nature and focused on discovery of knowledge and meaning embedded in nursing practice. Therefore, lines of inquiry are posed for consideration rather than hypotheses formulated for verification. The major task is to describe the characteristic nurse-patient transactions by attending to the intentions, expectations, and explanations offered by the nurse practitioners. Specific questions of interest may be stated as follows:

1. How do the following six aspects of practical knowledge, identified by Benner (1983), show up in the

transcripts and participant observations?

a. Graded qualitative distinctions. This refers to the ability to recognize subtle perceptual distinctions, such as differences in skin color or texture, or pulse quality.

b. Common meanings. This refers to shared background knowledge of a cultural group in this case nurse practitioners.

c. Assumptions, expectations, and sets. These aspects refer to the orientation to a particular situation and the proposed trajectory for a particular patient.

d. Paradigm cases and personal knowledge. Paradigm cases are outstanding episodes from clinical experience that make a significant impact on the clinician's practice and altered perceptions while personal knowledge refers to each clinician's particular history, commitment, and orientation to specific clinical situations.

e. Maxims. These are cryptic instructions that require deep understanding of the situation before they make sense.

f. Changing practices. This refers to knowledge development associated with role expansion that is acquired largely through clinical experience.

2. To what extent is the clinical knowledge of nurse practitioners exemplary of the following commonly recognized aspects of the discipline of nursing?

a. Holistic personalized assessment.

b. Involvement of patient/family in care.

c. Incorporation of health maintenance and promotion into care along with illness treatment and detection.

d. Inclusion of teaching, counseling, and supportive interventions.

3. To what extent do the skilled practices described by Benner (1984a) as competencies of nursing practice characterize the clinical practice of nurse practitioners?

Definition of Terms

Ambulatory Care: health care provided to persons who are not institution or home bound. This is a general term which does not limit the type of provider, the kind of setting, the level of care (primary, secondary, or tertiary), the acuity of the problem, or the duration of the provider/patient relationship (episodic or continuous). (See Reynolds, 1975).

Nurse Practitioner: a registered nurse who has successfully completed a training program beyond basic nursing preparation who provides patient care services that "reflect a blend of some of the diagnostic and management skills that were, prior to 1965, traditionally and publicly reserved for physicians" (Lewis, 1980, p. 14) with traditional nursing skills.

Exemplar: is a concrete, typical example whose meaning can be readily compared or translated to other examples even though the specific objective characteristics might be quite

different. An exemplar might constitute a paradigm case for a clinician. This definition is based on Benner's work (1984a) and Rosch's work (1977). Rosch refines the concept of paradigm as exemplar by providing experimental evidence that:

> categories appear to be coded in the mind neither by means of lists of each individual member of the category nor by means of a list of formal criteria necessary and sufficient for category membership but, rather, in terms of a prototype of a typical category member. The most cognitively economical code for a category is, in fact, a concrete image of an average category member (1977, p.30).

Dreyfus explains that:

> exemplars cannot be treated as abstract types; rules cannot replace the typical case. More generally, human beings tend to agree in their judgments of how similar an object or event is to a prototypical case, without being able to explain their judgment in terms of context-free features as required by cognitivist theory.Indeed, as Eleanor Rosch has noted,what counts as a relevant feature seems to follow from judgments of similarity rather than to be presupposed by them (Dreyfus, 1984, p. 16, see Rosch, 1978, p. 42).

Dreyfus summarizes the significance of the role of exemplars as follows:

> After 2000 years it seems clear we must give credit to Socrates and Plato for the vision of theory which has flourished in the natural sciences, but in the human sciences it might turn out that Euthyphro, who kept trying to give Socrates paradigm cases rather than abstract rules, was a true prophet after all (1984, p. 17).

Paradigm Case:Benner defines a paradigm case as:

> A clinical episode that alters one's way of understanding and perceiving future clinical situations. These cases stand out in the clinician's mind; they are reference points in their current clinical practice. Paradigm cases form the bases for predictions and projections. ...Paradigm cases are exemplars that become a part of the clinician's

perceptual lens (1984a, p. 296-297).

Summary

A selected review of nurse practitioner research and clinical judgment research which provided the background for this study has been presented in this chapter. Assumptions underlying this research approach were described. Research questions were stated and significant terms were defined.

CHAPTER III

METHODOLOGY

This study incorporates an innovative approach to identification and description of aspects of nursing knowledge. Methods of data collection, analysis, and interpretation are described in this chapter. Study limitations are discussed and issues of validity and reliability are addressed.

Research Approach

This descriptive, naturalistic study uses an interpretive approach to investigate nurse practitioner practice and the knowledge and skill of nursing practice evident in actual clinical episodes in ambulatory care. The AMICAE project research directed by Benner (1983 & 1984a) serves as a model for this study which extends the interpretive approach to nursing in ambulatory care settings. A particular advantage to this method of study is that it allows for the maintenance of the context of events which in turn allows for rich naturalistic description and consideration of transactional variables such as commitment and involvement (Benner, 1984a). According to S. Dreyfus (1982), "the best information on the nature of experience-based human understanding derives from careful description of actual real-world skill-acquisition experiences" (p. 136). This contention provides the underlying rationale for Benner's (1983, 1984a) research and the study reported here.

Heidegger's hermeneutics from Division I Being and Time (1927/1962) provides the philosophical background for the methodology used in this study. It is a holistic perspective in the tradition of Heidegger's hermeneutics of everydayness (Dasein). Hermeneutical phenomenology is distinct from Husserlian phenomenology in that it "gives up the phenomenologists' attempt to understand man as a meaning-giving subject, but attempts to preserve meaning by locating it in the social practices and literary texts which man produces" (Dreyfus & Rabinow, 1982). The hermeneutical strategy used in this study is also distinct from the hermeneutics of suspicion used by Heidegger in Division II of Being and Time where the goal is to uncover hidden or latent causal explanations.

The manifestation of things as what they are is the goal and hermeneutics (the interpretation of cultural contexts and meaningful human action) is the method (Dreyfus, in press). The purposes and goals are: 1) to uncover relational or configurational patterns; 2) to make the commonplace (taken for granted and unrecognized) visible and understood; and 3) to describe and interpret data to enhance understanding and offer explanation as well. The explanation and prediction offered differ from that offered by formal methodologies.

Commonalities may be found and teleological (goal-directed) explanation and prediction of a transactional nature, based on background skills, meanings, and practices

shared among people with a common history and common situations may be found (Dreyfus, in press). In other words, understanding is embedded in a context according to Heidegger and interpretation is simply bringing the understanding to awareness, i.e., understanding emerges through systematic interpretation of a text analogue (Dreyfus, in press). Examples of hermeneutical studies of the understanding in our everyday practices and discourse include (Taylor, 1979, 1982), interpretive social science (Rabinow & Sullivan, 1979), nursing (Benner, 1983, 1984a), and stress and coping (Benner, 1984b).

Hermeneutics emphasizes the relation of context and meaning. "The general statement of the hermeneutic circle is that the whole is interpreted in terms of its parts, but the parts are in turn interpreted in terms of the whole" (Agar, 1980, p. 265-256). Understanding another culture, like learning a language, comes about through interaction over time and dwelling in the culture until we share know-how and qualitative discriminations (Polanyi, 1958 & Dreyfus, 1980). For Heidegger this involves looking for the primordial understanding in everyday practices which are overlooked, but recognized when pointed out.

A basic tenet is that cultural meaning and organization precede individual meaning. The background cannot be made fully explicit or completely clear and we cannot get completely clear of it. The background gives human beings the conditions of their possibility, perceptions, actions,

etc. Human beings always come to a situation with a preunderstanding (Dreyfus, 1979). Meaning is a transaction between the person and the situation, so that the person both constitutes and is constituted by the situation (Benner, 1984b). Dreyfus and Haugeland (1978) point out that Heidegger's study of everydayness demonstrated that human beings don't encounter pure sense data, but instead notice things that matter in terms of concerns, purposes, intents, and actions. Heidegger concluded that there is no independent essence since things depend on their interrelationship in some totality. Thus the strategy of hermeneutics is to systematically move from the whole to the parts, understanding each in terms of the other.

Sample

The convenience sample was comprised of nurse practitioners practicing at least half-time for a year or more in the same setting with patients in hospital-based ambulatory care clinics who consented to participate. The concept of role transition and the need for time to develop confidence and competence in a new role provide the rationale for these selection criteria. The actual size of the sample and the precise number of research sites was not determined a priori, but rather was determined as the data collection and concurrent data analysis progressed. A total of twenty two nurse practitioners participated in the study.

The age range of study participants was from 29 to 52 with a mean of 37.7 years. There were 21 females and one

male. There were 17 caucasians, four orientals, and one black. Marital status was 32% single, 41% married, 22.5% divorced, and 4.5% widowed. Selected educational and experiential characteristics of the study participants are depicted in Table 2.

Study of Table 2 indicates that the majority (82%) of participants received their basic nursing education in baccalaureate programs. The type of nurse practitioner training varied among the sample. Almost half (45%) were prepared in graduate nursing programs. The years of RN practice prior to nurse practitioner training ranged from 3 to 24 years with a mean of 8.05 years. The most frequent previous work setting as an RN was hospital in-patient units. The 22 participants practiced in 37 work settings as RNs. Interview data indicated that job changes were most often related to changes in residence.

The number of years experience as a nurse practitioner ranged from 3 to 11 with a mean of 6.1 years. The majority (55%) practiced as nurse practitioners from 3 to 5 years. It is noteworthy that 20 of the 22 study participants were practicing in the same setting in which they began their practice as nurse practitioners. Thus, it is apparent that job turnover is quite low among this group. One of the two nurse practitioners who changed jobs did so because of a change in residence. The other worked part-time as a nurse practitioner in two settings prior to obtaining a fulltime position.

Table 2

Nurse Practitioners by Selected Professional Characteristics and Program Type

Professional Characteristics	OTJ[1] #	STCE[2] #	LTCE[3] #	MHS[4] #	MSN[5] #	TOTAL #
		Type of Program				
Prior Nursing Prep						
Diploma			1		1	2
Associate Degree				2		2
BSN	3	2	4		9	22
Total	3	2	5	2	10	22
Previous Work Setting						
Hospital Inpatient	3	2	5	1	7	18
Hospital Outpatient	2	1	2	1	1	7
Community Health			1		3	4
Extended Care		1	1			2
Inservice Ed			2			2
School Nursing			1		1	2
Teaching			1		1	2
Total	5	4	13	2	13	37
Years of RN Practice						
1-2						
3-5		1	1	2	6	10
6-10	3	1	1		2	7
11-15			1		1	2
16-20			1		1	2
more than 20			1			1
Total	3	2	5	2	10	22
Mean 8.05 years						
Years of NP Practice						
1-2						
3-5		1	1		10	12
6-9			3	1		4
10 or more	3	1	1	1		6
Total	3	2	5	2	10	22
Mean 6.1 years						
National Certification						
ANA[6]	3	1	4	1	9	18
NAACOG[7]			1			1
NAPNAP[8]					1	1
CNM[9]				1		1
NONE		1				1
TOTAL	3	2	5	2	10	22

Note. (1)on the job training (2) short term continuing ed (3) long term continuing ed. (4) Master of Health Science (5) Master of Science in Nursing (6) American Nurses Association (7) National Association of American College of Obstetrics and Gynecology (8) National Association of Pediatric Nurse Associates and Practitioners (9) College of Nurse Midwifery

All but one study participant was nationally certified as a nurse practitioner even though certification was only required in one study site. The American Nurses Association was the most frequent certifying organization (82% were ANA certified). Membership in professional organizations ranged from 0 to 5 with a mean of 1.5, a mode of 0, and a median of 1 indicating that only half of the group were members of any professional organizations.

TABLE 3

Areas of Preparation by Areas of Practice

	Areas of Practice						
Areas of Preparation	Adult	Family	GI	Derm	Pedi	Occup Health	Total # (%)
Adult	13		1	1			15 (68)
Family	2	2					4 (18)
Pediatrics					1		1 (4.5)
Geriatrics	1						1 (4.5)
Emergency						1	1 (4.5)
Total	16	2	1	1	1	1	22 (100)
(%)	(72)	(9)	(4.5)	(4.5)	(4.5)	(4.5)	(100)

Table 3 shows that the majority of study participants were prepared as adult nurse practitioners and practice in adult care settings. Two family nurse practitioners and one geriatric nurse practitioner practice in adult health. Areas of specialization within the adult practice category included adult immmunodeficiencies (AIDS), anticoagulation, arthritis, gastrointestinal disorders, hypertension, mental retardation, pulmonary, and employee health.

Study of Table 4 indicates that the average study

Table 4

Selected Clinical Practice Characteristics

	Range	Mean
Patient Caseload		
No. patient visits/day	4-30	10.05
No. patients contacted by phone/day	0-15	4.7
No. patients in caseload	75-2000	372
MD Consultation	0-75%	24.8%
Percent of New patient Visits	5-99%	47.7%
Time for New patient Visits (in minutes)	10-120	51.36
Percent of Followup Visits	1-95%	49.3%
Time for Followup Visits (in minutes)	10-60	31.36

Referrals	Range	Mean
	0-95%	61%

Types of Referrals	#	%
All Types	11	50%
All Except Nurse Specialists	8	36%
Physicians Only	1	4.5%
All Except Social Worker	1	4.5%
None	1	4.5%
Total	22	100%

Percent Time Spent in Job Activities

	Participants Relevant for		Range	Mean
	#	%		
Direct patient Care	22	100	35-95%	68%
Administration	15	68	0-45%	8.18%
Precepting Students	18	82	0-45%	9.27%

participant saw 10 patients per day, made 4-5 patient phone contacts, and had a caseload of 372 patients. Only 5 (25%) of the participants indicated that they made any hospital visits to patients during a typical clinical day. Of those 5 who made hospital visits, 3 made an average of one visit per day and 2 made an average of two visits per day.

Table 4 shows that on the average, physicians were consulted for about 24.8% of patient visits. This suggests that the nurse practitioners felt confident in their ability to manage the care for the majority of their patients.The percentage of new patient visits and followupvisits was about equal, 47.7% and 49.3% respectively. The time spent for new patient visits was on the average 60% longer than that for followup visits.

In all of the study sites the actual time spent with each patient was largely determined by the nurse practitioner within general parameters typical for the setting. If additional time was deemed necessary for a particular patient the nurse practitioner had the option of deciding if additional time could be devoted to the patient at that time or whether a followup visit should be scheduled.

Table 4 indicates that on the average referrals were made on 61% of patient visits.This suggests that the nurse practitioners were functioning as primary care providers and that the majority of patients had complex problems requiring specialty consultation. Fifty percent of the study

participants made referrals to all types of providers. A fair number (36%) of participants indicated that they did not make referrals to nurse specialists. It is not known whether this was a result of their ability to manage the nursing concerns, their lack of regard for nurse specialist services, lack of reimbursement for such services, or some other reason.

Table 4 shows that on the average study participants spent 68% of their time on direct patient care. Administrative activities were engaged in by 68% of participants and they spent an average of 8.18% of their time on these activities. The majority (82%) of participants were involved in precepting nurse practitioner students and they spent an average of 9.27% of their time on this activity.

In all of the study sites the nurse practitioner role was well established as an integral part of the clinic. In the ambulatory care center, the nurse practitioner participants were administrators of their clinics in addition to being care providers. They coordinated care for the patients of other providers in addition to their own patients. These nurse practitioners reported that this combination of clinical and administrative functioning was satisfying and challenging for them and was cost effective for the clinic. It was unique among the sites and could be used as a model for others.

Charting in all four study sites followed the problem

oriented recording system. There were no resources for dictating progress notes and all charting was done by handwritten notes. Charting was sometimes delayed when schedules were hectic, thus leading to the potential for inaccuracy.

In each of the study sites there were specific restrictionson patient eligibility for care. These varied and included residency, income, and military service related criteria. The nurse practitioners were observed to be quite skilled in providing needed care through liberal interpretation of the guidelines.

In all of the study sites nurse practitioners had to have prescriptions signed by physicians. In one of the sites, nurse practitioners were authorized to sign all prescriptions for supplies and over the counter drugs. At this site physician's assistants have renewal prescription writing privileges and nurse practitioners there were currently planning to negotiate for this privilege as well.

Only two of the nurse practitioners studied had any on call responsibility. One worked with terminally ill patients and shared on call responsibilities with the physician in her clinic while the other, a midwife, was on call for deliveries. Otherwise all of the nurse practitioner participants had regularly scheduled hours and days to work with weekends and holidays free.

Table 5 indicates that patients were predominately (77%) in the adult/elderly group. The majority (80.46%) of

Table 5

Selected Patient Characteristics

Patient Sex	Range	Mean
Male	25-99%	80.46%
Female	1-75%	19.55%
Total		100%

Patient Age	Nurse Practitioner #	(%)
All Ages	2	(9)
Children	1	(5)
Adults	2	(9)
Adult/Elderly	17	(77)
Total	22	(100)

Patient Ethnicity	Nurse Practitioner #	(%)
Mixed	13	(59)
Predominately* black	1	(04.5)
Predominately* Caucasian	7	(32)
Predominately* Hispanic	1	(04.5)
Total	22	(100)

Note. *Predominately signifies 60% or more.

patients was male due to the fact that 16 or 73% of the study participants practiced in Veteran's Administration facilities. Patient ethnicity was mixed.

Research Settings

Hospital-based ambulatory care settings were chosen for several reasons. Since more nurse practitioners practice in ambulatory care settings than any other type of setting (Sultz, 1977), study of practitioners in these settings would be of interest to a large group of nurse practitioners. It is widely held that setting factors have a major impact on practice above and beyond training factors

(Bower, 1979; Buehler, 1982; Carter, 1979; Hocheiser, 1974; & Sultz, Henry, & Carroll, 1977). By limiting the settings studied to one major type it was hoped that the internal validity of the study would be enhanced. The four study sites were all hospital-based ambulatory care centers. Two of the sites were Veteran's Administration Medical Centers, one was a University Ambulatory Care Center, and one was a County Family Health Center. They were all associated with major university health centers.

Bower (1979) and Buehler (1982) suggest that greater potential for the development of the nursing component of the nurse practitioner role exists in settings were several nurse practitioners work together. This provides a conceptual rationale for limiting the settings studied to sites where several nurse practitioners work together. The number of nurse practitioners who worked together varied from 2 to 10. Collaboration between nurse practitioners and support within their own group was observed during entry negotiations, participant observation visits, interview sessions, and consensual validation sessions. Nurse practitioners appeared to be very supportive and collegial in all of the sites.

In one site the nurse practitioners shared a large communal office. They had weekly morning meetings and planned semi-monthly meetings. The opportunity for interaction was maximized by the group office arrangement. At two other sites nurse practitioners had individual

offices, but met monthly as a group to facilitate communication and collaboration. At the fourth site the nurse practitioners either shared an office with another nurse practitioner or had an individual office. Meetings at this site with other nurse practitioners were informal, but there were regularly scheduled meetings for all clinic providers that the nurse practitioners attended.

Collaboration of nurse practitioners with consulting physicians in their clinics was observed to be generally quite collegial. Participant observations indicated that a major factor impeding collaboration and decreasing nurse practitioner satisfaction with it was lack of physician availability necessitating sometimes time consuming searches for an available physician. In one site a physician was specifically present just for consultation and was always available unless there was a delay in the "change of shift" or consultation was taking place in a provider's exam room. The major reported dissatisfaction of nurse practitioners at this particular site was that the perceived competency of the consulting physicians was not always optimal.

Collegiality and collaboration between nurse practitioners and specialty physicians varied with the specialties and the individuals involved. Collaboration between nurse practitioners and private physicians not connected with the particular hospital-based clinic was quite poor. Aspects of collaboration are discussed further in Chapter VI.

Clinical Episodes

There were 133 clinical situations described in the interviews and 66 clinical situations observed during participant observations of practitioner/patient visits for a total of 199 situations. (see Appendix H). These clinical situations comprise the units of analysis in this study.

Procedures

Data collection procedures included small group (pair) interviews, participant observation, individual interviews, and a brief structured questionnaire (see Figure 1). The average time for any one nurse practitioner pair to complete the data collection process was one month. There was a total of 62 hours of interview and 80 hours of observation over the 8 months of data collection for the 22 nurse practitioners. Nurse practitioners were interviewed in pairs on two separate occasions approximately two weeks to one month apart. The rationale for conducting more than one clinical situation interview was that recurring themes could thereby be identified. These interviews focused on collection of narrative accounts of memorable clinical practice situations which included as much detail as possible about actual activities, the chronology, intentions, feelings, fears, beliefs, and expectations of the nurse practitioner. They were tape recorded and transcribed and lasted approximately two hours each. An adaptation of the critical incident interview guide developed by Gordon and Benner (1980) for the AMICAE project

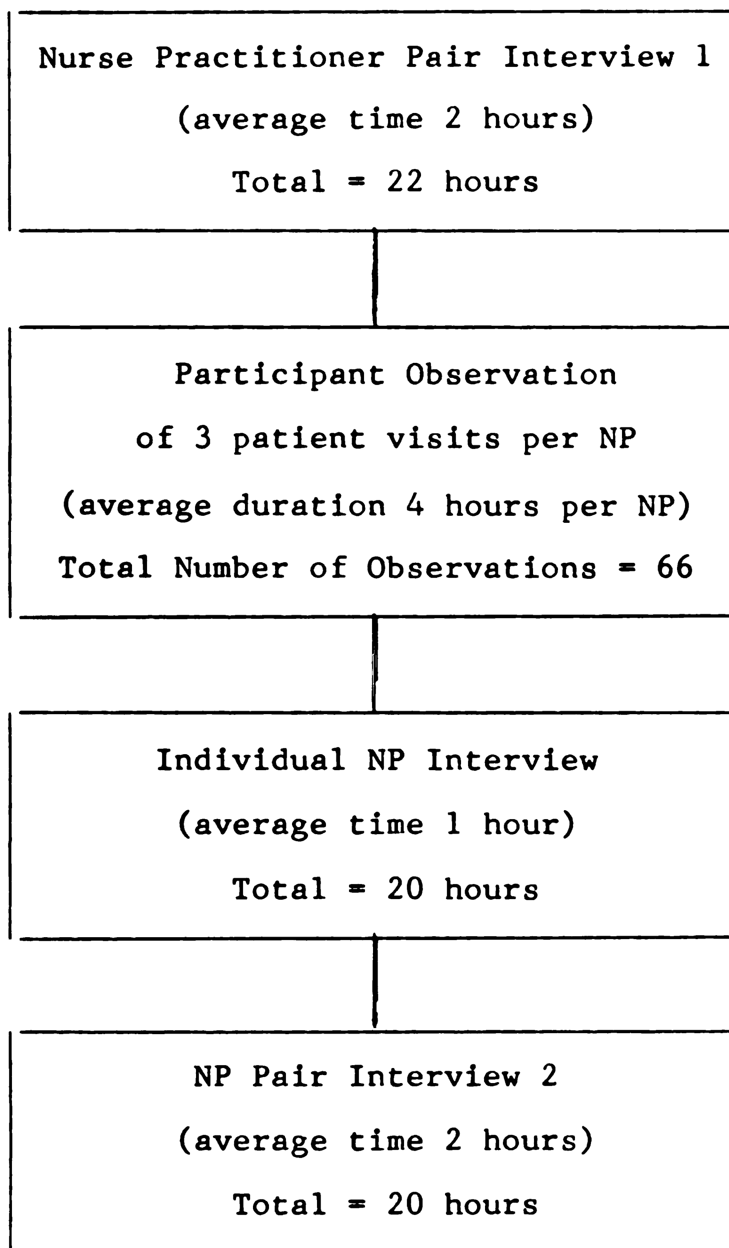

Figure 1: FLOW CHART OF DATA COLLECTION PROCESS

(see Appendix A) was used for these small group interviews that were directed toward narrative description of actual clincal episodes.

The adapted interview guide was piloted with the first nurse practitioners and was found to be quite suitable for the elicitation of narrative accounts of clinical situations. One adaptation was to refer to "critical incidents" as clinical situations that are significant and remembered to remove the emergency connotation of the term "critical." The critical incidents described by Benner and Wrubel (1982) included the following:

> 1) an incident in which the nurse felt his or her intervention really made a difference in patient outcome, either directly or indirectly, 2) an incident that went unusually well, 3) an incident in which there was a breakdown (i.e., things did not go as planned), 4) an incident that is very ordinary and typical, and 5) an incident that captures the quintessence of what nursing is all about (p. 14).

Participant observations took place after the first group interview sessions. Field notes were compiled from participant observations of each nurse practitioner during one clinical session that included at least threepatient-practitioner encounters. Three nurse practitioners had to be observedtwice as a result of four patient refusals to be observed and schedule changes. The purpose of these observations was to obtain firsthand description of the actual practice of the participants. These field notes could be compared with narrative accounts and provided a basis for further questioning and clarification of intentions, expectations, and beliefs inherent in practice. Participant

observation is deemed essential for this methodology because clinicians may not describe many aspects of their skill and knowledge that they now take for granted or consider routine.

Individual interviews were conducted with nurse practitioner participants following the participant observation sessions. The purpose of these interviews was to obtain information about their educational and experiential background as nurses and nurse practitioners, to explore their goals and expectations in patient care, and to clarify questions or puzzles from the participant observations. An interview guide (see Appendix B) developed by the investigator was used as a guide for these semi-structured interviews that took about an hour. The guide provided for completeness and comparability of these interviews. The order of questioning was flexible so that leads in responses could be followed up. In addition, a brief demographic questionnaire was developed to describe the characteristics of the participants and their practices (See Appendix C).

Human Subjects Approval

The study was approved by the Human Subjects Committee of the University of California prior to any data collection. The study was also approved by the Human Subjects Committee of Stanford University to gain entry to an additional site. Consent forms for nurse practitioner participants included a brief description of the study and an outline of the procedures (See Appendices D & E).

Participation was voluntary and participants were apprised of their liberty to withdraw from the study at any time. Although the professional group identity of the subjects is known, i.e., that they are nurse practitioners, anonymity of individual participants was provided for by assigning each a number. At 2 sites the nurse practitioners agreed to participate as a group and at 2 sites nurse practitioners volunteered to participate individually.

It was expected that participants would benefit from the research by participation in the uncovering of new knowledge and understanding. The small group (paired) interviews provided nurse practitioners with the opportunity to share clinical experiences with one another. Time investment was considerable and required a total of five hours of interview and 4 hours of participant observation per subject. Consent forms for patients were employed for participant observation of nurse practitioner-patient visits (See Appendices F & G). There were four refusals by patients who declined permission to be observed.

Interpretation and Analysis

Benner (1983) explains that "the model of study of practical knowledge resembles the interpretation of a text" (p. 41). The transcribed interviews and field notes comprised the text. Narrative accounts were collected with as much detail as possible since details about the context of the situation, such as intentions, interpretations, chronology, etc., serve to limit possible meanings. Benner and Wrubel (1982) explain that the narrative form "assists in securing sufficient detail, thinking, and chronology for the listeners to understand the incident and for the interpreters of the transcript to grasp the essentials of clinical knowledge exemplified in the encounter" (p. 14).

Data analysis entailed systematic study of the text. Analysis was directed toward recognition and interpretation of knowledge exemplified by the clinical episodes. In the interpretive method, the researcher engages in a dialogue with participants and with the text generated. Data collection, analysis, and interpretation are interdependent ongoing processes. In terms of text interpretation, behavior is referred to as the text analoque while the text is an account of behavior (Taylor, 1982).

In his presentation of an alternative to current dominant theories of meaning, Taylor (1982) identifies three functions of language, as follows: 1) it serves to make things explicit through articulation, 2) it makes things public, and 3) it brings essential human concerns to

our awareness. Taylor explains that language does not only serve to describe or represent things, it is also constitutive and expressive. New knowledge and understanding are constituted by bringing meanings embedded in practice into public space via dialogue.

Data analysis followed a four stage process similar to that used by Benner in her stress and coping research (1984b). The first stage of interpretation involved reading and study of the text as a whole. Notes were made with initial questions and interpretations. The purpose of this first stage of interpretation was to get a sense of the whole. In the second stage of data interpretation, interview excerpts were studied in depth to identify themes. The third stage of data interpretation involved identification of aspects of practical knowledge and generally recognized aspects of nursing practice in each episode. The fourth stage involved rereading and study of the material generated in the previous interpretive stages to identify competencies evident in ambulatory care, to generate further interpretive insight, and to validate previous interpretations. In the process of interpretation, the interpreter moves systematically from whole to parts and back to whole. Interpretations were communicated back to the nurse practitioner participants for validation and generation of further insight. The validated interpretations then stand for the clinical knowledge that has been communicated and understood.

The unit of analysis is particular clinical situations. A strength of this methodology is that both extreme objectivity and subjectivity are overcome by maintaining the situational context and studying the person in the situation. The intent is not to reveal private subjective meaning nor to make generalizations about universals, but to discover commonalities in actual meanings and practices. The goal is to uncover the knowledge evident in memorable episodes of actual clinical practice. Generalization is based upon common practices, skills, and meanings rather than context-free rules or principles.

In keeping with the dictate that data collection and analysis proceed concurrently, data interpretation began from the start. The text from the first eight subjects was studied as a whole to get a sense of it. Consensual validation was begun from the start with Patricia Benner, the research sponsor. She independently interpreted the first raw data and shared her written interpretations with the researcher who then compared these to her own prior written interpretations.

Another opportunity for consensual validation arose through participation in a doctoral seminar on interpretive methods offered by Benner. Four narrative situations (specifically situation numbers 1, 10, 24 & 25) were selected from the initial data set and were distributed to the seven seminar participants and one uninvolved nurse practitioner colleague. They independently studied and

interpreted this excerpted text according to the guidelines provided by the researcher (see Appendix I). Interpretations were shared in writing prior to discussion so that comparison of independent interpretation was possible. The written interpretations were then discussed and expanded by seminar participants. These independent interpretations were then compared with the researcher's own prior written interpretations for consensual validation and additional insight. Discrepancies in interpretation were clarified by referring back to the text.

The process of interpretation continued as more data were collected and analyzed.Exemplars of aspectsof practical knowledge were identified and recurring themes were clustered with the relevant narrative section from the text and further analyzed to identify competencies of clinical practice. The aspects of practical knowledge and the competencies of nurse practitioner practice exemplified in the text were derived by an inductive process similar to the constant comparative method described by Glazer and Strauss (1967). The interpretive method differs in that the aim is to describe content and meanings rather than to identify and describe theoretical terms.

Data collection continued during this period of data analysis thus adding additional text for further validation of suggested interpretations. It was also possible to consensually validate interpretations with participants during data collection. After data collection was completed,

discussion sessions were scheduled with participants to share the progress of the research to date, to obtain their comments on the interpretations, and to generate further insight. These consensual validation sessions were planned around the presentation of exemplars that illustrated particular aspects of practical knowledge and discussion of the competencies identified for nurse practitioner practice in ambulatory care.

Validity

Agar (1980) points out that with hermeneutics, validation in the classical sense is not possible, yet any ethnographer could provide numerous examples to show that "among all possible interpretations of an action, some of them are ethnographically 'better' than others" (p. 257). Agar states that "a general guideline for successful interpretation is to judge if that interpretation is reasonable in a given context" (p. 263). He identifies several anchors for validating interpretations, including commitment to group meanings and belief in the continuity of group life.

Interpretations can be validated because meanings do not reside solely in individuals--groups are committed to shared meanings. Therefore, it is possible to validate meanings among group members. In this study it is assumed that nurse practitioners share common meanings due to their common membership as nurses practicing ambulatory care. The continuity or history of the particular group in each site

also provides a basis for validation since present "facts" and events are related and can be compared to past facts and events.

In this study episodes are interpreted by looking for recurring themes or connections. Consensual validation is based on the assumption of group member commitment to shared group meanings while the strategy of interpreting in multiple stages is based on the fact that interpretation at one stage provides a basis for comparison and reappraisal. The final interpretation must be plausible. In moving from the parts to the whole, the interpreter is confronted with contradictions, conflicts, and surprises and seeks to determine whether these stem from actual change or discontinuity or whether they stem from artifact or inaccurate interpretation. The threat to validity due to observer bias that may result in spurious findings is managed by consensual validation, multiple methods of data collection, and multiple stages of interpretation.

Observer effect is another major validity concern in participant observational studies. As noted previously, the notion of a neutral observer of brute data has been abandoned as an assumption underlying this study. Observer effect is therefore regarded as appropriate for consideration in both human and natural science research studies. Qualitative researchers report a decreased influence of observer effect over time and Hansen (1981) suggests that the major consequence of observer effect is

muting of typical patterns. In their report of the Nurse Practitioner Rating Form (NPRF), Jacox and associates (1981) report that "both nurse practitioners and clients quickly get used to raters in the case of live observation, or to tape recorders in the case of taped visits" (p.64).

In this study participant observation was limited to three patient visits per nurse practitioner therefore it must be concluded that the visits were somewhat altered. Perhaps patients were less spontaneous and offered less confidential information and perhaps practitioners were more conscientious, attentive, and thorough than usual. One nurse practitioner was observed to be particularly nervous during the history taking component of the observational visit and visibly relaxed during the performance of the physical examination. One nurse practitioner remarked that she felt like she was being evaluated by a faculty member during the observation visit. Observer effects such as these would not alter the accuracy of the actual observations, that is, valid observations could be made of what occurred with an observer present. Observer effect was probably attenuated in this study by the common practice of having observers such as students present during visits in these teaching medical centers.

There is no such thing as a definitive ethnography. An ethnographic study is influenced by the researcher, the group being studied, past experiences, background effects, and what is recognized as relevant. Agar (1982) comments

that:

> ethnographer, intended audience, and group all represent traditions that limit, but do not determine, the possible ethnographic reports that emerge. . . ethnography is neither 'subjective' nor 'objective.' It is interpretive, mediating two worlds through a third (p. 783).

Benner (1984b) describes the role of the interpreter in her stress and coping research as follows:

> to examine and study the various interpretations and meanings as they unfold over time and in different circumstances. The interpretive process and distance make the lived interpretations visible. There is no privileged or assumption free position for the interpreter or for the participant, however, this does not mean that agreement or understanding is impossible (p. 59).

Cherniss (1980) outlined five criteria of internal validity that Benner used to guide her effort to produce reliable and valid results in her stress and coping research (1984b), as follows:

> First, they [the interpretations] should help us to understand the lives of the subjects; we should better comprehend the complex pattern of human experience as a result of these. Second, the themes should maintain the integrity of the original 'data.' Third, the interpretations should be internally consistent. Fourth, data that support the findings should be presented. Usually, these data will take the form of excerpts from interviews. Finally, the reported conclusions should be consistent with the reader's own experience. In qualitative research, the readers must critically scrutinize the results of the thematic analysis, playing a more active role in the process of 'validation' than they normally would. (Cherniss, 1980, pp. 278-279).

These criteria were also used to address the reliability and validity concerns in this study. Three strategies incorporated into this study to minimize observer bias include: 1) participants selected the clinical

situations that they described in the group interviews; 2) consensual validation of interpretations was provided by nurse practitioner participants, the dissertation committee members, an uninvolved nurse practitioner colleague; and six doctoral student nurse colleagues, and only agreed upon interpretations were accepted; and 3) multiple methods of data collection, data collection over time, and multiple stages of interpretation. Data analysis was directed toward identification of recurring themes or patterns as well as presentation of particular clinical episodes. Extensive evidence is presented in narrative form so readers can also participate in the validation process.

Summary

In this chapter the interpretive research approach has been described. An overview of the philosophical background for hermeneutical phenomenology and its major tenets has been presented. Selected characteristics of the sample and settings are described. The criteria for sample and setting selection were presented and limitations were discussed. The procedures and processes of data collection were explained. Interpretation and analysis of the data were depicted as systematic study of the text of clinical situations. The four stage process of interpretation was described. Issues of reliability and validity were addressed.

CHAPTER IV

Historical Development Of The Nurse Practitioner Role

Nursing practice develops in many ways. Expansion via physician delegation is well documented in the history of nursing practice. The thermometer was first used only by the physician before its incorporation into nursing care and the stethoscope and sphygmomanometer followed a similar pattern. Over time nursing has assumed responsibility for monitoring vital signs and this is now such an accepted component of nursing practice that many fail to realize that vital signs were once solely in the physician's domain. Yet, nursing practice is not comprised solely of tasks. As Mauksch (1981) states:

> Historically, nurses have taken over tasks originally done only by physicians, such as taking temperatures and blood pressures, and so it is now with physical assessment. Yet, these tasks have never been the main component of nursing care. The primary functions of nursing fall into two other realms: first, the emphasis on health maintenance and health and self care education and second, the care of the ill and the dying (p. 4).

Benner (1984a) states that "the nursing role in hospitals and extended care facilities has expanded largely through unplanned practices and interventions delegated by the physician and other health care workers"(p. 10). Physician delegation is just one of the ways in which nursing practice develops. Advances in technology, conquest of major infectious diseases, preponderance of chronic conditions, concern with the high cost of health care, interest in lifestyle modification and promotion of health

all contributed to the emergence of the primary care movement in the early 1960s which in turn influenced the development of nursing practice and nursing role expansion in ambulatory care.

At first organized nursing resisted proposals from medicine to collaborate in plans to expand the scope of nursing practice to include history taking, physical examination and medical management of ambulatory patients. In fact the first physician's assistant program was begun in 1965 at Duke University by Eugene Stead Jr., a physician, following:

> his unsuccessful attempt with Thelma Ingles, RN, in the late 1950s and early 1960s, to train master's degree nurse practitioners at Duke University. The program was denied accreditation on three occasions by the National League for Nursing ... on the basis that the assumption of medical tasks by nurses was at least inappropriate and perhaps dangerous. Failure to achieve accreditation necessitated phaseout of the nurse practitioner program and caused Dr. Stead to turn his attention to training ex-military corpsmen as physician's assistants (Fisher & Horowitz, 1977, p. 40).

The idea that nurse practitioners would manage common acute and stablechronic patient problems in consultation with physicians while physicians would manage uncommon acute and complex chronicpatient problems was vehemently opposed because it was perceived as more of an extension of medical practice than an expansion of nursing practice. Nurses objected to the concept because it conveyed the impression that nursing was just a little bit of medicine and it was feared that nurse practitioners would function as junior doctors--kind of lifelong interns--always under physician

supervision. Thus, the new health professionals, physican assistants, were born in the early 1960's at Duke University without collaboration from nursing educators.

Shortly thereafter Loretta Ford, a nurse, and George Silver, a physician, initiated the first program preparing nurses in expanded roles in ambulatory primary care in an academic school of nursing. Ford (1982) states that "the first nurse practitioner program was initiated in 1965 to test an expanded scope of practice for professional nurses who held a baccalaureate degree in nursing at the University of Colorado. ...and the seed for the dream--the preparation of nurse practitioners in the master's programs in nursing--was planted" (p. 233-234). Only the seed for the dream was planted. As a result of opposition from academicians, the first program for preparing nurse practitioners was started in a continuing education format rather than as a graduate program.

In 1972, the report by the Secretary's Committee to Study Extended Roles for Nurses was completed. The federal government looked favorably upon the primary care movement and the expanded role concept since it was predicted that health promotion and illness prevention would be more cost effective than simply treating disease and nursing manpower could be used more effectively.

> There is growing recognition of the importance of physician-nurse collaboration in extending health care services to meet increasing demand. The nurse is a provider of personal health care services, working interdependently with physicians and others to keep

> people well and to care for them when they are sick. The role of the nurse cannot remain static--it must change along with that of all other health professionals, which means that the knowledge and skills of nurses need to be broadened. A basic problem is that many nurses are not practicing at their highest potential nor receiving training and experience that would enable them to extend the scope of their practice and thereby extend the availability of health services (1972, p. 46).

Before the first project was complete, many other programs preparing nurse practitioners were initiated as continuing education programs. They extended into other specialty areas such as adult, family, and OB/GYN; were often taught primarily by physician faculty; and included more medical management than the original project which prepared nurses for expanded roles in comprehensive child care. Ford (1982) comments that "some of the changes made in these later models lost sight of the academic standards, the initial goal of integrating the nurse practitioner concepts into the degree curricula, and the maintenance of the major conceptual and philosophical dimensions of the nursing role" (p. 235).

During the 1970s nurse practitioner programs of all types proliferated. There was a great deal of variability in the content and quality of the programs. Program length varied from a few months to 2 years. The standards for preparation of nurse practitioners in continuing education programs were developed by the American Nurses Association (1975) to provide for some measure of quality control in these programs. Accreditation was another measure developed to promote quality and provide extramural validation of the

knowledge and skills of nurse practitioners. There were numerous organizations involved in accreditation of nurse practitioners. The American Nurses Association has now become the organization which accredits the bulk of nurse practitioners.

As the evidence supporting the safety, efficacy, acceptance, and cost effectiveness of nurse practitioners began accumulating from the large number of studies comparing the care provided by nurse practitioners with that delivered by physicians, interest in nurse practitioner training grew among many in nursing. The fact that few nurse practitioners were prepared to teach in nurse practitioner programs was problematic for control of nurse practitioner education by the nursing profession. As the nurse practitioner role became more accepted it was recognized that in order for it to be fully incorporated into nursing education and practice more nursing faculty would have to be skilled practitioners to teach in these programs and to precept students clinically. A variety of continuing education programs were developed for nursing faculty to acquire the necessary knowledge and skill to teach in practitioner programs.

Certainly the most sophisticated and perhaps the most well known of these faculty development programs was the Robert Wood Johnson Nurse Faculty Fellowship in Primary Care Program which was developed in 1975. Mauksch (1981) states that in 1975 she was invited to planning meetings

with the Robert Wood Johnson Foundation to determine how the foundation might best contribute to nursing's continued involvement in primary care delivery. The greatest need was determined to be preparation of nursing faculty for teaching primary care skills. Over the next five years, 100 nursing faculty were provided the opportunity of a year long fellowship to: 1) develop clinical primary care skills, 2) study primary care curricula, 3) engage in joint practice with physicians, and 4) conduct primary care research (Mauksch, 1981). The impact of this program will not be fully realized for several years since among other things, many of the nurse faculty fellows went on for doctoral study following their fellowship year (Lindeman, 1985).

As more nursing faculty began to assume responsibility for teaching nurse practitioners, medical control of programs was gradually replaced by more collaborative arrangements between nurse practitioner faculty and physicans. The shortage of nurse practitioner clinical preceptors for nurse practitioner students persists to the present time and physicians often function as preceptors for these students. This willingness of physicians to devote time and energy to working with nurse practitioner training is a heartening example of cooperation between nurses and physicians. It is interesting to observe that the pattern of nurse practitioner training has followed that of early nursing training. Pathophysiology and patient management were taught largely by physicians in early nurse training

schools and as more nurses acquired the necessary knowledge and skills of illness management and teaching they replaced physician faculty in nursing programs.

Current Trends

Nurse practitioner programs have gradually become an accepted part of graduate education in nursing and most certificate programs are being phased out in favor of degree granting programs. In fact, the role has become so well accepted in nursing that there is a call for abandoning the special title "nurse practitioner" and using the traditional graduate nursing term "clinical specialist" (in primary care) to refer to these nurses. Actually, the term "nurse practitioner" has been a point of contention ever since it was first introduced in 1965. It has been argued that all practicing nurses are practitioners of nursing. Continuing semantic struggles such as this one serve only to alienate and divide nurses and nursing rather than to unite. In spite of the fact that the term "nurse practitioner" is not unique and definitive, it has gained acceptance and recognition among patients and health care providers and changing it might confuse rather than clarfiy.

In addition to the impact of the nurse practitioner role on graduate programs in nursing, there are some who believe that much of the knowledge and skills of the primary care nurse practitioner (particularly the health history and physical examination) should be incorporated into basic nursing practice (McGivern,1974 and Brykczynski, Hayes,&

Waters, et al., 1983). Ford (1979) envisions the nurse practitioner as the nurse for all settings and Fagin (1981) claims that primary care is the academic discipline of nursing. Perhaps the greatest contribution of the nurse practitioner movement has been the heightened awareness of the importance of clinical competence for nursing faculty in general. As Mauksch (1981) states the nurse practitioner role brought with it "an affirmation of the intrinsic value of nursing as a practice" (p. 4).

This brief historical overview supports the contention that nursing and medicine do not constitute circumscribed, static fields, but rather are dynamic and continue to develop and change as circumstances and conditions change. The incorporation of physical assessment skills, health history taking, and problem oriented charting into nursing practice is now common in nursing curricula and may enhance interdisciplinary communication and collaboration without fundamentally altering the nature of nursing. The distinctions between the disciplines of nursing and medicine are part of the background culture of each discipline. They are contained in the philosophical foundations and sociocultural traditions that are transmitted through education and practice. It is not possible to completely objectify and classify the distinctions between nursing and medicine, however, it is possible to clarify some of the issues.

Summary

An overview of the historical development of the nurse practitioner role has been presented. Current trends in the nursing education were discussed. The impact of the nurse practitioner role on the value attributed to clinical practice and issues regarding disciplinary distinctions were pointed out.

CHAPTER V

PRACTICAL KNOWLEDGE

Practical knowledge is knowledge embedded in skills and practices. Understanding that there is knowledge that cannot be completely formalized, i.e., that there are limits to formalization, eludes people trained in the dominant epistemological tradition unless they devote careful attention to the thinking of philosophers and scientists in this area. In the following excerpt, one of the nurse practitioners describes what she refers to as "common sense" and her description of the importance of timing and implementing the best approach in a given situation helps clarify what practical knowledge involves.

> Nurse practitioner: Well, there are principles and rules, but sometimes you have to wait on the rules until a patient is ready. Common sense is like a judgment call. It's an assessment that this is not the time to do something. It's a matter of judgment and a best way to approach something. I think through years of experience, you learn how to say things to different people and I think anybody even without common sense develops that. But it's knowing when to put them all together that a lot of people lack. Common sense is something intangible and I don't know how to tell you.
>
> Investigator: Yes. It's very important to me to explore this because one of the most common things that I've heard nurses say is "Well, most of what we learned in nursing school is common sense." And it's my view that what we call common sense is something that we somehow learn just from being with patients and taking care of them and studying about health and illness and because our classmates understand as we do, we call it common sense.
>
> Nurse practitioner: Oh, yes--because you couldn't make a judgment unless you have a background to know that you can make this judgment. You have to draw from all of your knowledge. And it isn't intuitive and it isn't

> something that's common sense, you have to have a background. I learned that as a nursing supervisor. My definition of a nursing supervisor is somebody who thinks when nobody else wants to be bothered. ...But it goes beyond rules and policies--you just do it. It's not intuitive, it's years of finding out what you do and you don't do and a lot of it is developing a skill.

Blois' (1980) discussion of clinical judgment helps clarify what this nurse practitioner is referring to. Blois states that "clinical judgment counts for little unless it rests on a firm base of ordinary judgment" (p. 193). Blois depicts the cognitive span required during diagnosis as a funnel which is very large on initial contact with the patient where the care provider "must have at least an average acquaintance with the world and must be able to exercise common sense" (p. 192) to sort out the most relevant of numerous possibilities and the mouth of the funnel becomes progressively more narrow as relevant information is gathered in the context of the situation and possibilities are selectively reduced. Blois suggests that it is at the initial stage of the judgment process where vast background knowledge and skill are required that human judgment is most essential and cannot be substituted for by computer programs.

In the above account, the nurse practitioner is describing the "know-how" or practical knowledge that develops through the practice of skills. It is a perceptual kind of knowledge which resists formalization. The nurse practitioner's account highlights: 1) the discretionary judgment that is a central aspect of "know-how;" 2) the

importance of background knowledge to skill development, and 3) the experience-based nature of practical skills. It refers to the common error of mistaking rule governed performance or rational calculation for discretionary judgment. In excessive formalism, discretionary judgment is covered up. Benner and Benner point out:

> There is utility in making rules explicit so that procedures can be coordinated and carried out with some quality control. Indeed, a major strategy for reducing conflict in organizations is to formalize rules and to write out policies. But there is a limit to what can and should be made explicit, as exemplified by the nurse who would follow the written nursing care plan to the letter without assessing changes in the patient or the environment that may have occurred since the plan was written. Such a nurse would have lost the ability to grasp distinctions and exceptions without precise written policy, and would be considered unsafe to practice nursing (1979, p. 94).

The interview transcripts and field notes from the participant observations were analyzed and interpreted to uncover aspects of practical knowledge identified by Benner (1983). The five aspects of practical knowledge discussed in this chapter include: 1) graded qualitative distinctions, 2) common meanings, 3) assumptions, expectations, and sets, 4) maxims, and 5) paradigm cases.

Qualitative Distinctions

A major area in which practical know-how showed up in the text was patient assessment. This was an expected finding since performing a complete health history and physical examination was an expanded skill acquired and practiced by the nurse practitioner participants. Repeated clinical situations indicated that nurse practitioners

develop considerable diagnostic acumen as a result of their attention to qualitative distinctions in their assessment of patients. This aspect of practical knowledge was given the name "assessment expertise" as a recurring theme in the data. The following three aspects appear to be central to assessment expertise: 1) spending time, 2) recognition of subtle cues, and 3) listening. Situation #25 exemplifies assessment expertise and is described by the nurse practitioner as follows:

> About 2 years ago I saw a 32 year old guy who was complaining of excessive sleepiness. He thought he had narcolepsy and my first red flag went up because most people coming in complaining of narcolepsy of course want amphetamines. .. But as I listened to him, I thought "No this guy is not a drug seeker--this guy's got a problem." And what he was complaining about was that for the past three years he had been unable to hold down a job because he fell asleep at work, he was almost totally unable to conduct his activities of daily living because he couldn't stay awake, he would fall asleep in the midst of phone conversations and he just described this whole thing of being constantly tired, constantly falling asleep, and being very stressed out.

This excerpt illustrates the nurse practitioner's awareness of a set "drug seeker" and recognition that this patient's situation was qualitatively different. She goes on to describe how much time she spent listening to the patient:

> In my first hour with him, I never examined him even. He was just so anxious, so upset, and had so much to tell me that all I ever got out of him was his history the first entire hour. I just (you know how you get that overwhelming sense when someone is really anxious), they get done and you feel anxious. I just felt claustrophobic in this room with this man.

This nurse practitioner used herself as a kind of

personal barometer. She attended to personal cues such as feeling very anxious or depressed and sorting out whether these feelings were generated from her or were communicated by thepatient. Other personal cues to which she attended that aided her in her assessments were feelings of lack of closure, of uneasiness, incompleteness or discomfort which she describes as a sense that something was going to come up.

The nurse practitioner arranged to have thepatient's records sent from his previous provider and set up a followup appointment with him to complete the assessment:

> his previous records indicated that a pretty thorough narcolepsy workup had been done and it was indeed all negative and his basic routine labs were also negative. And he had except for some mild obesity a completely normal exam. And I didn't really have much of a clue what was going on except that I thought that maybe it was psychiatrically related, but there was a little voice in the back of my head that said "something else is going on here. This just doesn't fit. This is not all anxiety."

This excerpt illustrates that the nurse practitioner can make qualitative distinctions between different patterns of behavior. As a result of her experience with different situations involving patients with varying degrees and types of symptoms, she is able to interpret perceptual cues that signal the distinctive aspects of behavior in this particular situation.

This nurse practitioner clearly describes her ability to discriminate among ambiguous cues, her practical knowledge, which she refers to as "gut flags,"that "sixth sense," and "intellectual flags" in the following excerpt:

> When someone comes in and they're looking for drugs, there's this drug seeking behavior that after you see it enough times--you know it. The stories are real concrete and their words are worried, but their affect is not worried and their tone is not worried. I don't think it ever crossed this guy's mind that Ritalin and narcolepsy went together. You could tell his concern was not that he be diagnosed as narcoleptic, but that something was interfering with his life and it was just a different sense than you get from people who are coming in seeking drugs. He was not as concrete and premeditated as people who have decided that this is the drug they want and they have this system to go about getting it. He was much too loose for that and so my sense was that was wrong. It wasn't a gut flag that went up when he said narcolepsy--it was an intellectual flag and I said "Watch out." When he left, it was my gut flag that went up and said "Something's not right here." He did have some mental problems, but after what he had been through for the amount of time he had been through it, I could understand why he had need of a psychologist.

The nurse practitioner related that after spending two entire hours with this man:

> All I could think of was that it was my sixth sense that he was more than neurotic. He had a kind of whiny, neurotic personality, which I knew was probably the reason that other providers hadn't listened to him and looked any further. I just had this sense that something was going to come up.

This is an example of experience-based recognition of subtle cues in a patient's condition and getting an overall initial impression or gestalt about the patient situation in the first few moments which are later confirmed or disconfirmed by events. In this case the man was found to have an inoperable glioma thus validating the nurse practitioner's sense that something was going to come up. It is also a good example of detecting qualitative distinctions between different patterns of behavior.

Another illustration of the ability to make qualitative

distinctions is provided by a nurse practitioner's description of how she determines if a patient is understanding what she is trying to teach him.

> Nurse practitioner: I couldn't tell you how to teach anybody, but I know when they really don't understand and then I get a sheet of paper and havethem write in their own words what I've told them. I'll never forget a patient who was on a tapered dose of prednisone. I gave him jelly beans and he ate this day's jelly beans and took that many pills. This many and this many and so on. That was the level that we were at. That was developing teaching skills and after a while, you can look at a patient and know if they understand and if they're going to do it or not. It's the way they look at you. It's there or it isn't. It's the way they look. And I just say "Now tell me what I just said." And if they can tell you and if they ask appropriate questions...if they ask something out of left field then they've missed it. Usually there is an exchange of information. You ask something and if they ask something appropriate enough you know that they've understood. It's not just the look. When someone looks totally befuddled it's easy to see. But sometimes they will ask something that makes you think they understand and you have to rely on your experience and your sense of the whole situation and try various ways to determine if they understand.

This excerpt shows how the nurse practitioner has developed an ability to qualitatively assess a patient's understanding of something she has tried to teach him. She has developed this skill over time through successes and failures in teaching patients. She knows how to look for evidence that the patient has or has not learned. She explains that you learn from your mistakes:

> You give a patient something and they go home and do it all wrong. Then they come back and you realize you didn't teach them well. And eventually you get down whatever way you're going to teach and it works. And you have that background so you can use it. I think that everybody develops their own teaching styles, good or bad, and eventually patients learn from it. But they need to know when to use what and that comes from

experience and judgment.

This account stresses the importance of timing; of individualizing strategies for particular patients; and of skillfully evaluating whether or not a patient has actually understood and can carry out what has been taught. These are the hallmarks of expert teaching which develop as knowledge and skills are modified and refined in actual situations.

Situation #16 exemplifies the "know-how" of making graded qualitative distinctions in clinical practice. The nurse practitioner describes her perceptual ability to distinguish between someone who is perhaps excessively hypochondriacal and someone who is probably psychotic as follows:

> I had a patient a couple of months ago who came in as a new patient. He came in with a typewritten detailed 3 page list of 32 questions that he wanted to ask.

Patients often write their questions out and bring them along to health care visits so they don't forget to ask about things that are important to them. This was not unusual in itself, however, the fact that the list was typewritten and contained 32 questions was unusual. In addition to being exquisitely detailed the list included several bizarre questions such as:

> Periodically when I swallow my throat feels like paté de foie goose, why is that? And: Could the television have any telepathic powers?

The nurse practitioner commented that:

> Some of his things were real legitimate concerns, but you get the feeling that you're in the twilight zone when you have someone who is schizophrenic in your office. That's something that you just learn through

> clinical experience and I've had enough of them so I know.
>
> Investigator: But what is it that gave you that twilight zone feeling?
>
> Nurse practitioner: Well, it's just a feeling. When you find yourself sitting there and listening to a patient and you're sort of fascinated because it's so bizarre. If you haven't worked with a lot of schizophrenics, it's hard to describe. It's a feeling, but it's also that you find youself fascinated with this conversation.
>
> Let's see, another example is one of my patients who lives downtown in a hotel. You ask her medical history and she'll say "Well, I've had this hospitalization or that one and yes they locked me away for 2 years. I was a political prisoner and they took me away in this big van." And she goes on and on and you find yourself really listening and trying to determine if there is any thread of truth to this account or what is this and the more that the individual talks the more you can see that that is their reality. They have a whole kind of skewed world and one little piece fits into the next in some obscure sense so that it is semi-plausible, but yet not really.
>
> And yet if you excuse yourself for a minute or you step back, you say this person is definitely schizophrenic. And when you get two people like that in an afternoon you feel like you're in the twilight zone. That's why I call it the twilight zone. But it's just a real strange feeling of stepping inside of somebody else's mixed up world that they basically have down fairly intact and live within. They're just bizarre.

In this excerpt the nurse practitioner describes her perceptual sense that someone is out of touch with reality as something that is learned through experience. She has developed a strategy of sitting back and trying to sort out if a patient's account is plausible or not.

This nurse practitioner recognizes the fear people have of being stigmatized by being labeled with a psychiatric problem. She did not belittle the man's situation. Instead she took him seriously and noticed that she had an opening in the afternoon and told the patient:

> I'm going to spend an hour with you this morning going through your history. I'm going to spend extra time with you and this afternoon because I have an opening you can come back for your physical exam.

The nurse practitioner continued:

> I didn't even get through the whole history in an hour, but I spent an hour with him in the morning and then an hour in the afternoon. One of his questions was "Am I crazy?" And I basically told him that I think you have a number of minor complaints. I said "We'll sit down and go through this list one by one, but overall you certainly appear to be in fairly good health." I mentioned that he seemed quite obsessed about certain things and said that we would need to pick up on that later.

In this excerpt the nurse practitioner takes the patient seriously and evaluates his complaints. She doesn't immediately assume that he has no problem that she can help him with and doesn't tell him that it is all emotional. This shows real respect for the patient as a person.

In the next excerpt the nurse practitioner describes how she protects the man from the trauma of as she puts it "starting with the big guns" and offers him some basic treatments for some of his complaints, and sees him back on followup when, after getting to know him better, she suggests that he go for a psychological evaluation.

> Nurse practitioner: I spoke with the behavioral medicine unit director and talked with a psychiatrist on the phone before I referred him. And when he came back the second time for (I did a few little tests) followup of his tests and just to see how he wasdoing. "Has this worked? Has that helped?" I had made some basic suggestions such as eating bran. I also gave him a little cream for his skin. I told him that I had looked into the behavioral medicine unit and thought that would be a good place to go for an initial evaluation and he could take it from there.
>
> You know people who've never been for counseling often have this horrible fear that once they see a

> psychiatrist they're going to get locked into the ward, thrown into the clink, or that they'll lose control over themselves. So I find that if patients who need psychiatric or psychological evaluation know from the start that they have some control and can set out what they want to do with counseling and have some choice that it really helps.

This account illustrates the nurse practitioner's ability to handle the delicate situation of letting someone know that he has emotional problems for which he should seek professional help. She does not label the patient "crazy" or immediately refer him to a psychiatrist, but she is committed to helping him with his problems and does help him accept the need for psychological evaluation. It was brought out during the clinical interview session that this man had been to many care providers of various specialties, but none had recommended or succeeded in having the man accept the need for counseling.

The other nurse practitioner in the interview session pointed out that it's unfortunate that care providers sometimes avoid getting involved with people's emotional problems. It is a difficult and sensitive situation to handle. It takes skill first of all to detect the subtle cues that suggest someone really needs help; it takes skill to recommend care in such a way that it is accepted; it takes time to establish rapport with someone so that they will heed your suggestions; it takes a real attention to the individual person to come up with a plan that will be followed; and it requires approaching emotional problems with a positive, realistic, caring attitude.

Other examples of qualitative distinctions include the ability to detect subtle changes in a patient's condition over time which show up in the perceptual recognition that the patient "looks tired today" or "really looks sick." As Benner (1984a) points out "often the perceptual grasp of a situation is context dependent; that is, the subtle changes take on significance only in light of the patient's past history and current situation" (p. 5). Both experience and continuity are central to these perceptual, recognitional abilities of clinicians.

Common Meanings

Common meanings are defined by Benner (1984a) as "taken-for-granted or background knowledge that is not socially negotiated in an explicit way. Common meanings make it possible for persons to communicate directly and understand one another without interpretation or translation" (p. 292). Common meanings are a part of a shared tradition. This aspect of practical knowledge cannot merely be transferred from nurses to patients as information or instructions. Common meanings are transmitted by cultural practices, specialized language,and expectations.

A common meaning identified by Benner (1984a) is that nurses develop a sense of possibility around health and illness concerns through observing and helping patients. Benner called this meaning "situated possibility;" and depicts it as the sense that every situation has its own possibility, even the most deprived situations. This common

meaning showed up in this study in situation #31 where the nurse practitioner saw possibility for a more peaceful death for a woman with breast cancer (see pp. 187-189).

A common meaning identified in this study is that understanding is preferable to confusion or the unknown even if what is comprehended is undesirable. Benner (1985a) points out that individuals actively try to understand their lives in the face of changing circumstances, therefore assisting patients to achieve understanding of their particular situation "is a worthy therapeutic goal in itself" (p. 43).

The following excerpt from situation #25 where the nurse practitioner describes the patient who "kept falling asleep," but who was actually having temporal lobe seizures due to an inoperable glioma exemplifies this common meaning and it's significance to the patient.

> Nurse practitioner: But, it was rewarding in some ways at least to have given him a sense that he really wasn't crazy and he wasn't imagining all this and there was some reason for what was happening to his life and it really did make a difference I think in the quality of the end of his life. I think that if he had died never having found out what was wrong that the last six months to a year of his life would have been a significantly less pleasant time than it was. And at least knowing, he did some of the things that he wanted to do. He went and visited with his family and we got him on disability, so he wasn't constantly trying to hold down jobs that he couldn't hold down. So there were some positive points out of it, but it was a sad positive at the most.

This excerpt illustrates that understanding the situation is important for both the nurse practitioner and the patient. In this situation where cure was not possible,

the nurse practitioner provided information, offered emotional support, and coordinated resources which assisted the patient in coping with his terminal condition.

Common meanings form the orientation to patients and their problems. They are an important part of the disciplinary matrix and set up what is perceived as a problem.

Assumptions, Expectations, And Sets

Assumptions, expectations, and sets influence the nurse practitioner's orientation to a particular situation and the proposed trajectory. Assumptions are taken for granted and often unrecognized or tacit beliefs that something is true (see Polanyi, 1958). Expectations are occurrences that are anticipated as probable, reasonable, necessary or obligatory. Sets are inclinations or tendencies to respond to anticipated situations. Assumptions, expectations, and sets are not mutually exclusive concepts rather they are closely interrelated and influence and are influenced by one another. This aspect of practical knowledge can have both negative and positive influences on clinical practice.

Recognition that a patient fits a certain "set" can have a positive influence on practice because the appropriate response can be carried out without delay. The experienced nurse does not simply apply sets to patients in a rule-like fashion, but rather attends to perceptual cues and recognizes qualitative distinctions between an individual who fits a particular set and one who appears to

fit a particular set on the surface, but does not really conform to it. Situation #25 exemplifies this aspect of practical knowledge. The nurse practitioner recognized that the man with the brain tumor did not fit the set "drug seeker." She also recognized that his anxiety and his behavior did not fit the set of a "neurotic personality." Thus, set recognition can enhance accuracy of assessment and facilitate appropriate responses to situations.

Another aspect of assumptions, expectations, and sets that impacts on care is that when a particular set is recognized and responded to, the clinician attends to how events unfold and if expectations are not confirmed then reassessment takes place. Thus, confirmation or disconfirmation of expectations provides an additional check on accuracy. Situation #13 provides an illustration where the outcome did not meet expectations and the situation was reassessed.

> Nurse practitioner: There was a 22 year old Arabic patient who lived with his parents and who came in for a check up. He was found to have high blood pressure. He seemed very anxious and we talked about that on many visits. It seemed as though he was having some difficulties adjusting to our society. He had his first real girlfriend and all the issues that go with that. And so we talked about that and I talked about the effect of stress on blood pressure as well as the fact that he was overweight. So I was working with him initially on nonpharmacological means to control blood pressure, such as cutting out salt, losing weight, and doing some relaxation exercises.
>
> Well, he did wonderfully with losing weight. He lost 30 pounds. I used to see him every 2 weeks. We'd go over what he was doing. He was very compliant. Really a delightful person to work with, but his blood pressure didn't really come down. And so I started him on some Inderal and eventually had him on a pretty high dose and his blood pressure still was elevated. I had

begun the usual hypertension workup with blood chemistry, a CBC, and a urinalysis. And I started to do a few other things like a 24 hour urine for protein and VMA and an EKG. And really the last thing I did was a chest x-ray. I followed him closely--I didn't let him go--I didn't say come back in six months.

I followed him closely on his major problems--his weight, his anxiety, and his blood pressure. It was I think due to persistence that I picked up his coarctation of the aorta. I did this because on one visit I scratched my head and said "Why is his blood pressure still elevated? It shouldn't be." And I reviewed the workup I had done over the past year and I really did not feel a great discrepancy in his pulses which you're supposed to feel with a coarct, but I did a chest x-ray and that provided the diagnosis.

Investigator: So you scratched your head...

Nurse practitioner: I said "Let's figure out this puzzle because there's some reason why over the course of this time, he's been real compliant, he's lost weight, he has gotten a little better with his anxiety..." Something wasn't right and it's really that kind of clinical sense that there's something else that's going on that you can't just put your finger on. So I just tried to gather the whole picture together and see what else we hadn't ruled out. I had done a lot of different things outside of the chest x-ray, which is not supposed to yield much--that's why I didn't do it.

This example illustrates how the failure for expected events to occur results in the nurse practitioner's reevaluation of the situation. It also shows that the nurse practitioner had a perceptual awareness that something wasn't right and this strengthened her commitment to continued pursuit of an underlying cause for the high blood pressure. In addition, it exemplifies the nurse practitioner's close attention to followup.

The following excerpt from situation #1 points to the nurse practitioner's awareness that her expectations can have an impact on patients. She takes the impact of her

expectations seriously and has learned not to set unrealistic goals. She realizes that having no expectations can communicate a sense of hopelessness and can convey the message that the provider has "given up" on the patient and she has learned to maintain and communicate hope by defining stability as progress in certain situations.

> Nurse practitioner: I feel like there are certain things that I'm not going to change about people's lives. They may go on smoking cigarettes, drinking, or whatever the behavior is, but if I like them--it's sort of crazy in a health setting to have liking somebody make a difference, but it does. I've always liked this woman despite the fact that she's been real destructive in her life, she's done some very positive things in her life too. She's raised a family, she still takes care of her grandchildren. Her children are crazy about her. She and her husband are both alcoholics, but they've been together for years and years and I suspect that she'll continue to complain about him as she always has. So, I don't have any expectations as such, except to just be there and provide a service. At this point I see her behavior as less destructive than it's been in the past. I mean--the alcohol is not good, but it's better than IV heroin. She seems to have a certain stability in her life now that makes her functional.

This excerpt shows how the nurse practitioner has learned to connect with someone whose lifestyle and habits are not optimal. She looks for something in her life situation, in this case being a good mother, to respect or value about this woman as an individual. She has been able to establish a longterm caring relationship with this woman and has contributed to some positive changes, but mainly she promotes maintenance or stability in the woman's health condition and she has learned to see this as progress.

There were several examples of situations involving habit modification where the nurse practitioners were able

to maintain and communicate hope which resulted in patients changing longterm habits. Several nurse practitioners mentioned that they always include discussion of smoking and drinking in their patient visits when it's relevant to the patient's situation. They comment that they "never give up" and point out that not saying anything can be interpreted by the patient as condoning their poor health habits. In situation #116 the patient specifically credited the nurse with motivating him to stop drinking. He presented the nurse practitioner with his four year sobriety medal from Alcoholics Anonymous. In spite of the nurse practitioner's protest that the patient was the one who deserved the medal, he really wanted her to have it as a way of thanking her.

Assumptions, expectations, and sets can have both negative and positive influences on practice. Study of this aspect of practical knowledge can contribute to increased understanding of clinical situations and to enhanced effectiveness of care.

MAXIMS

Maxims are cryptic instructions that require understanding of the situation before they make sense. A well known maxim that surfaced in the data is "ninety percent of diagnoses come from the history." This maxim is illustrated in situation #25 where the nurse practitioner's diagnosis of a temporal lobe tumor is based almost entirely on historical data. The other nurse practitioner who participated in the interview session when this situation was described commented upon hearing the account:

> It's so neat to find out that the history as they've always said is 90% of the diagnosis, but it's like sometimes it's 98%. I think that we spend more time than physicians in getting the history and really asking the detailed questions.

The following interview excerpt highlights the significance of the history.

> Nurse practitioner: I think on most things probably the key point for me is really the patient's history. If somebody comes in and they say they've lost 20 pounds, they tire easily, they can barely get down a piece of bread, and they're looking miserable and you put all those things together. Part of it is your intuition, your past nursing experience, and everything put together, but you look at the guy and you say "he's got cancer. We've got to move on this one and find out what's going on with him." Whereas the next one who comes in has some other GI related symptoms, but has not lost weight, his appetite is all right, he's able to eat and maybe he's got gastritis or an ulcer. We'll go with antacids and watch him for awhile and see how he does and not push right away to get to the tests to come up with a real firm diagnosis.

The interview continues with the nurse practitioner describing how she attends to her own feeling of comfort or discomfort while taking the history to sense the severity of the situation. Thus it is clear that history taking does not

simply provide factual information. It also provides for time to be with the patient and get a sense of the situation through perceptual cues.

> Nurse practitioner: A lot of times you are not very far into your interview with the patient and you've already made up your mind that this is pretty benign. You're not going to worry too much about it or there's something going on that I'm not comfortable with or there's something that's missing and I'm just real uncomfortable and I really need to get the attending in on this. So I think it doesn't take very long into the interview to get that sense for it. Some people say that it's a nursing sense that you've already acquired from your past experience and I think it's probably true to a certain extent.
>
> Investigator: Just the fact that you've been around people who have been sick, some of whom are getting better and some worse. Yes. It sounds from the way you're describing this, you keep saying 'sense' and it sounds like it's a gestalt sort of thing.
>
> Nurse practitioner: Yes, it's many things put together.

Spending time with the patient while taking the history allows for sensing perceptual cues and making qualitative distinctions.

Situation #81 depicts the significance of the history and points to the importance of taking the time to obtain a careful history.

> Nurse practitioner: The wife of one of my patients called and explained that her husband had been having chest pain which woke him up at 4 o'clock in the morning. The wife was concerned because her husband did not want to go in to be examined. He had been to see a physician during the night two days before who decided that it was simply a problem of gas and sent him back home. The wife explained that she was concerned because even though he had that experience and was told that it was gas, he is having more of it. The wife was able to convince her husband to go in and see his regular nurse practitioner. So I told her to check him in as soon as he arrives and to let me know and I called for his chart.

> So she brought him in and I saw him right away instead of having to wait out there for 2 hours in the Walk-in clinic. I got an EKG. His story was typical to some extent and I was able to elicit a history of chest pain with radiation to both elbows, associated with some nausea and shortness of breath. His EKG just showed minimal changes. So I had the attending physician come in and see him and she got the same story of chest pain that I got. So we thought he should be admitted and called the admitting residents and the specialist.
>
> Well, the specialist asked his questions in such a manner that the patient's story just lost it's credibility. I was frustrated at the way the specialist was formulating his questions and discrediting the man's story. After all he told me he had chest pains and we got his EKG, so I discussed it with the attending physician again. Well, the patient was admitted and he had a subendocardial myocardial infarction with enzyme elevation which progressed into a transverse MI two days later when he had more chest pains.

In discussing this situation, the nurse practitioner was not objecting to the fact that the history the specialist was obtaining was different because she acknowledged that histories often vary from one provider to the next and in fact mentioned that one of the strategies for dealing with an ambiguous clinical situation is to have another provider elicit the history to get a second opinon on the history. And in a situation like chest pain where it's entirely a matter of historical diagnosis, she tries to get a second opinion. The nurse practitioner was objecting to the abrupt way in which the specialist was asking questions and that he was not going back and double-checking the history. The nurse practitioner pointed out that the patient was a very docile man and it was easy to see how he could be intimidated into feeling that his problem probably was just gas as the other physician had said when he came in

before.

This exemplar shows that since the history is such an important part of diagnosis, it deserves careful attention and warrants taking time to check for accuracy. It also indicates that obtaining a history in ambiguous clinical situations requires skill in recognizing sutble cues and the ability to make qualitative distinctions and points to the fact that knowing a patient over time contributes to understanding the particular situation.

Another maxim identified in the practice of several of the nurse practitioners in the study is "real disease declares itself." One of the nurse practitioners describes this maxim as follows:

> Another thing that we learn here is that "real disease declares itself." If you think somebody has low back strain, muscle strain and they go home and they get worse in 2 days, it's OK because they'll come back and you can still get them the surgery or whatever. Most of the time it's OK if they get worse. Sometimes at first you feel like a failure because somebody got worse, but it's really the actual disease declaring itself.

Understanding of this maxim requires a deep sense of actual situations in ambulatory care. The whole process of a patient coming in with a complaint and the provider assessing, diagnosing, and treating the problem with attention to verbal and nonverbal communication as well as recognition of perceptual cues on an outpatient basis with initial and followup visits must be kept in mind. Otherwise there is a tendency to say that the diagnosis should have been obvious since it appears obvious in a retrospective

account when this is not the case at all. Indeed the disease is obvious in retrospect, but real disease unfolds gradually in ambulatory care where the patient goes home between visits and considerable time passes between scheduling tests, referral visits, and followup visits. Often this passage of time yields spontaneous remission of symptoms rather than a manifestation of a progressive disease process.

In attempting to clarify the meaning of the maxim "real disease declares itself" for the investigator, one of the nurse practitioners offers the following situation of a man with hepatitis. Even though this is an instance where the real disease had already declared itself and was diagnosed, it serves to highlight the distinction between how the situation looks in retrospect and how it appears at the time. A young man had hepatitis and was worked up and followed as an outpatient. The nurse practitioner called the patient at home to see how he was doing.

> Nurse practitioner: He reported that he felt a lot worse, had a fever, had vomited the night before, but had eaten all right since. He thought he was getting a whole lot worse and needed to be hospitalized. And what other people will say in retrospect is that you should have known the first day he was here that he needed to be hospitalized...which isn't true. People are jaundiced and have hepatitis and if they're not vomiting and if their prothrombin time is normal, they can get through it at home okay as long as they can keep food and fluids down.

An exemplar of the maxim "real disease declares itself" is illustrated by situation #33 in which the nurse practitioner relates a clinical situation about a retired

man in his sixties whom she had been following for mild hypertension and some chronic low back pain. He came for a routine visit for a physical and lab update and his fasting blood glucose was found to be very high. He had no prior history of diabetes and no family history of diabetes.

> Nurse practitioner: When he initially presented, the elevated glucose was just picked up on a random panel of chemistries and he was without symptoms at that time. We were unable to control his blood glucose on diet or oral agents and we had to put him on insulin right away to bring his fasting sugars down from 400 to a good range. He then began to have kind of vague complaints, just didn't feel well, had low energy, had a kind of vague abdominal, not really pain, but just an unusual feeling in his stomach which improved after a bowel movement. He eventually developed some constipation. He was a very anxious man. A whole series of tests was done including an upper GI, barium enema, endoscopy, and at least 3 abdominal ultrasounds were done because he developed a palpable mass. Nothing really came of these tests, except that we knew he had diabetes.
>
> I continued to pursue the workup because I felt that something was wrong. Here was a man that was motivated to get out and walk and he found that he was getting weaker and could not walk for more than 15 minutes. On one of his referral visits to the GI clinic, he was seen by a GI fellow who was impressed by the fact that he was a new diabetic who was losing weight and had a palpable mass. He ordered a CT scan of the abdomen and that was when the pancreatic mass was picked up.

This nurse practitioner felt badly that the diagnosis hadn't been made sooner even though she knew that it probably wouldn't have changed the outcome. She had referred the patient to vascular surgery clinic and they felt that the abdominal mass was a tortuous aorta. She also sent him to GI clinic where he had an endoscopy which was noncontributory in terms of a diagnosis. The nurse practitioner also arranged for the patient to have several

visits with the consulting physician in the internal medicine clinic where the nurse practitioner practiced. The delay that this nurse practitioner is referring to was the time it took for the disease to declare or manifest itself. Careful review of the situation reveals that by the time the second GI fellow saw the patient, his vague complaints could be put together into a probable underlying cause, but this was not the case at all initially. A CT scan is simply not indicated for an asymptomatic elevated blood glucose.

In consensual validation sessions with the nurse practitioner participants, there was agreement that the delay in diagnosis was not due to any omissions on the part of the nurse practitioner. In fact they felt that she was conscientious and paid close attention to followup in this case. Of particular interest is the fact that this exemplar showed up in a group of nurse practitioners other than the group that developed the maxim. When the interpreted situation was presented and discussed with this group that was unfamiliar with the maxim, they found it very meaningful with regard to their clinical practice.

Uncovering this maxim and discussing it with the nurse practitioner participants shows how practical knowledge that is learned in actual situations can be shared among clinicians. A maxim such as this one can be useful for communicating and describing practical knowledge evident in other clinical situations and comparing them for similarities or dissimilarities with this exemplar.

Another maxim that surfaced in the data is "followup is everything." One of the nurse practitioners explains that one of the things that followup gives you is a chance to see the patient again--to go over the history again when you're different and he's different. She points out that followup is particularly important because there's a small percentage of people who do not have what it seems like at first or even if they do, they may not respond to therapy as expected. Thus, followup provides the opportunity to reevaluate the situation and to examine the course of events and observe for expected and unexpected developments.

The nurse practitioners in the study made a major contribution to care by providing close attention to followup of patients who were seen by other providers who did not followup for one reason or another. For example, a resident might have moved to another area, an attending may come too infrequently to provide for sufficient followup, a specialist may consider something out of their area, etc. The following excerpt from situation #106 illustrates the strong commitment to the importance of followup.

> Nurse practitioner: I've transferred a guy I've been following for severe COPD. I couldn't get him off steroids and his condition was beyond my expertise. Someone like that I refer to pulmonary clinic to follow them and I still see them yearly for their physical. I used to just transfer them over and then I found out later that pulmonary clinic really kind of needs that back-up to have somebody else followup on other stuff that they don't even deal with.
>
> So I've followed him regularly for 3 and a half years. I just referred him less than a year ago and they got him fixed up as much as possible, although his COPD is still very severe. He came to see me for a

> routine physical. And I found out that he had pink stools. He had loose stools a lot because he was on antibiotics often. He was having loose stools that he said looked like Septra. I'd never heard of that before, but he was sure that was the cause and wasn't worried about it. So I wasn't too worried about it either, but I did the physical and sure enough his stool hemoccult was positive.
>
> So I sent him for a barium enema as a routine check, but didn't think much about it because he didn't have any other signs of colon cancer. When he had his barium enema, the radiologist called me that day and said the man has to be admitted because he's got a big constricting mass that's partially obstructing his rectum and it will obstruct with the barium. He's got to be admitted today.

This excerpt illustrates the clinical significance of the nurse practitioner's close attention to followup. It also highlights the need for a continuous relationship with a provider who checks up on general aspects of a patient's condition even when the patient is being seen by specialists for particular problems.

The same nurse practitioner related another example of the maxim "followup is everything" which illustrates the "tunnel vision care" provided by specialty clinics that makes careful attention to followup so important. She had referred another patient with severe COPD to pulmonary clinic for management and continued to see him for general concerns. She describes situation #107 as follows:

> He came in for weight loss and I worked him up for that and did a routine check. It had been a year and a half since he'd had a chest x-ray, which isn't very long--maybe closer to 2 years, but with bad COPD, a long smoking history and all that, and there it was--a big mass.
>
> Investigator: And he had been seen in pulmonary clinic?
>
> Nurse practitioner: Followed regularly, but they don't do chest x-rays if their breathing is stable and they

> had done a real good job with his COPD. He hadn't had pneumonia, he had rare bronchitis, and was doing real well. And that's the ironic part, the family used to call me up all the time about his breathing and I hadn't heard from them in a long time. His breathing was fine.
>
> Investigator: And so he came to you for weight loss and you got his chest x-ray?
>
> Nurse practitioner: Yes, I had already done a lot of other things in his workup and it would have beeneasy to discount it, it would have been so easy to just say "Well, he's got bad COPD, he's working at breathing, I'm not going to worry about his weight loss." But I did a routine workup for weight loss.

This excerpt illustrates that the nurse practitioner was conscientious and thorough in her assessment of the problem. The fact that nurse practitioners attend closely to followup and take it seriously fulfills an important need in terms of the continuity so essential in ambulatory care. In one of the study sites a clinic staffed by nurse practitioners was set up for the sole purpose of followup and management of patients on anticoagulant therapy. The clinical situations described by these nurse practitioners illustrated the importance not only of careful attention to drugs ordered by other providers that could alter the patient's prothrombin times, but also the importance of adequate instruction of the patient about proper precautions to take, and necessary diet and lifestyle modifications so that patients could assume a more active role in monitoring their health status when they saw several providers for different problems who might not be so cognizant of anticoagulant precautions.

Several maxims were identified and described from the

text generated in this study. The nurse practitioner participants played a significant role in clarifying the meaning of the maxims in consensual validation sessions. This was important because understanding these cryptic sayings requires a deep understanding of actual clinical situations. Sharing clinical situations that exemplify maxims provides a way for experienced clinicians to dialogue about contextual and relational aspects of care that are clinically significant and relevant to their practice.

Paradigm Cases and Personal Knowledge

Paradigm cases as described by Benner (1984a) are outstanding clinical episodes that alter one's way of understanding and perceiving future clinical situations which are remembered by the clinician as significant turning points in developing their clinical skill and knowledge. They become part of the clinician's perceptual lens for responding to clinical practice situations. Paradigm cases often develop early in practice as naive practical knowledge and theoretical concepts are altered in actual practice. They are remembered episodes of what Polanyi (1958) refers to as a transaction with personal knowledge. As Benner states (1984a) "each person brings his own particular history, intellectual commitments, and readiness to learn to a particular clinical situation. The transactions created by this personal knowledge and the clinical situation then determine the actions and decisions that are made" (p. 9).

Situation #24 constitutes a paradigm case for the nurse practitioner which is remembered from early in her practice. It was significant for her and influenced her future clinical practice in that it was the first patient she followed that had to be admitted to the hospital; it was the first time she had to coordinate with other specialists in caring for one of her patients; she learned that it was possible to maintain a trusting relationship with a child while continuing to give them injections; and she learned how to match the therapeutic play around injections with the

child's developmental age. This paradigm case is too long to present in it's entirety, but the following excerpts illustrate how it affected this nurse practitioner's approach to clinical practice.

> Nurse practitioner: This was one of the first kids I've ever followed that needed to be admitted because it was when I first got here. .. The hospitalization was short and the diagnosis was made that he had an immune deficiency and the treatment worked--IV therapy. And then after that as an outpatient, I've been seeing him every 2 weeks to give him his shots for the immune deficiency. I always thought that would be a hard relationshipto work out--to give a little childshots everytime he saw me. It's been a rewarding experience because what I 've worked on with him from the very beginning was to do a lot of play in the room, so this room felt like a safe place for him. Everytime he came in we would play for about 15 to 20 minutes and then in the end I would give him his shot. And then we would do different play about the shots too. He would always leave the room upset that he had the shots, but never seemed to be upset with me which was surprising to me and a nice experience.

This nurse practitioner reported that she had a terrible experience with injections as a child and this heightened her awareness and increased her commitment to making injections a more acceptable experience for the children she cared for. Thus, this was a real test case for her to give injections to a child every two weeks and still have a trusting relationship with him.

The next excerpt depicts how the type of play changes with the child's changing developmental level:

> Right now he's three and three quarters, so he was 18 months when we started. So when I first picked him up, I thought how is an 18 month old going to accept getting shots every two weeks because 18 months of age is a really difficult time. In the beginning he didn't really remember or believe that he was going to get a shot and he acted like nothing. Just six months ago he started getting upset when he came here. That was the

> first time after 2 years that he started getting upset because he knew he was going to get a shot. So he would come in and say "Don't give me a shot." So we would talk about it and I had a puppet and in the beginning the puppet was great because after he had his shot he would give the puppet bandaids. Then after his coordination was better developed, he was able to give the puppet shots and then give him bandaids. And now he's at the stage where puppets don't mean that much, stickers mean a lot. So now everytime he comes he gets a sticker when he leaves and he gets really excited about that. So as he got older, I had to think of different rewards and different play.

This excerpt shows the nurse practitioner's considerable knowledge and skill in matching therapeutic play to the child's changing developmental level.

The next excerpt relates how the nurse practitioner has learned to coordinate care with specialists:

> In the beginning when I first began dealing with the immunologists, all the physician faculty here kept saying "Hey, watch out for them. They're going to take over. They're going to tell you what to do." And it was really my first contact with any specialist and it was my first time coordinating care with somebody outside our faculty here. So at first I wanted one of the physician faculty to deal with them and everytime I went down there the physician faculty would go with me, so it was the two of us because in the beginning they would bowl me over. They would just say things and I would say "OK, OK." I mean I don't know about immune deficiencies. I never learned that in school. And then after awhile, I now go there myself and call them up on the phone anytime I want and it's fine. They all know me. And it's really nice. It's really rewarding.
>
> I work real closely with the immunologists. And the nice thing is that they allow me to do whatever I feel is necessary and I use them totally as a consult. It's significant because they usually take over the care of any patient they have, but with this child they really let me take care of him.
>
> Whenever he comes here even to see the immunologists, he comes to my office and plays in there for awhile before he goes to see them. This is his home territory. Just the other day he went to immunology clinic for another followup visit and they told his mother that he's done so well and that he's so well behaved and understands everything because of what I've taught him. It's really nice to hear that because

> they're not the complimentary type of people over in immunology.

This excerpt illustrates that the nurse practitioner demonstrated her competency and her significant contribution to the longterm care of this child and she has won the esteem of a group of specialist physicians. There is no doubt that the immunologists value the care this nurse practitioner provided. It is a good example of the complementary nature of nurse practitioner practice with respect to specialty medical practice.

The following excerpt exemplifies how a paradigm case can alter the nurse practitioner's future practice and lead to changing practices. In situation #38, the nurse practitioner shows an awareness that involvement of the nurse practitionerin helping patients cope with chronic illness is appropriate, but somehow sees this as separate and in addition to simply following patients as a care provider. In the following excerpt, the nurse practitioner describes dissatisfaction with the care provided to a patient who was referred to the mental health clinic following a suicide attempt. The patient had lupus erythematosus.

> Nurse practitioner: I think because he had a chronic illness, they should have helped him to deal with that--what is good mental hygiene with a chronic illness and ways to cope with that rather than just seeing him acutely post-suicide gesture.
>
> Investigator: Is there any kind of mechanism for that?
>
> Nurse Practitioner: No, that's sort of fragmented. I feel like that's something I need to decide in terms of what my role is actually going to be in arthritis

> clinic after two years. Do I want to see patients in followup and just get assigned patients and have my caseload or do I want to do more classes and that kind of thing. What's available now is sort of split up between what individual providers do, what physical therapy does, there's the patient library where patients can go to get information, and then we do send patients individually to mental hygiene clinic or psychology.

The nurse practitioner's sense that the patient did not get the care he really needed in the mental health clinic is a motivating factor in moving this nurse practitioner toward thinking about becoming more involved in helping patients deal with chronic illness in the arthritis clinic.

One of the nurse practitioners described the following paradigm case between patient visits during a participant observation session.

> Nurse practitioner:The patient was a good looking well dressed 74 year old black man I saw while being observed by a pharmacology student.The patient told a complicated story and had complex medical problems and I had no idea what to make of his situation since nothing fit any clear picture. So I had the attending physician come in to see him for consultation and when I walked into the exam room with the male attending, the patient said "I'm worried about my nature."

Since then this nurse practitioner has altered her approach to care in terms of assessment of sexual concerns. She has learned to take the initiative and asks about sex. She finds that it makes it easier for patients to talkabout it if she brings it up. It gives permission and makes it more acceptable. This is an example of how knowledge learned in a particularly perplexing clinical situation can alter the clinician's practice in future situations.

The following excerpt from situation #22 illustrates

the attention to not only the patient's condition,but also his life circumstances as the nurse practitioner describes a situation that was a paradigm case for her when early in her practice she had a very complicated patient for whom she did a preoperative physical and assumed responsibility for his ongoing care.

> Nurse practitioner: It was just complicated. I felt like this train wreck rolled in the door..and what am I going to do? I think anybody would have responded in the same way, but it was maybe my second month here and this man comes in a wheelchair and he's got a problem list a mile long. He came for care here when the public health hospital closed. I've got a couple of patients like that that I still follow, but this man was the most complicated. He had hypertension, a stroke, arteriosclerosis--he had plaques everywhere. He also had chronic marital problems and he and his wife fought a lot. She controlled the money and the house because he was just about blind and had had a stroke. He was a delightful, really nice man and he would say "You know doctor, I just want to be able to get out more and do things."

This excerpt shows that the nurse practitioner attends not only to the patient's physical problems, but she is attentive to psychosocial and environmental needs as well. She knows about his marital relationship, his financial situation, and she also knows what the patient hopes to accomplish. The nurse practitioner used this knowledge to discuss the situation with his wife and learned that the wife was not giving the patient his medications because she felt they were too expensive. The nurse practitioner referred them to a social worker who helped them with managing their finances.

In the following excerpt the nurse practitioner describes how she managed to care for this complex patient.

Even though it was quite early in her practice, she discovered two surgically correctable problems (an aortic pseudoaneurysm and a carotid bruit) which she felt quite good about.

> Nurse practitioner: Well, basically the first time I saw him, I tried to get through it all, but it was nearly impossible. I got his records and had him come back to finish off his physical. It sometimes takes three visits to complete a complicated patient's entire history and physical and get their plans rolling. He took me probably three visits. There were two things medically that I picked up on, one an abdominal aneurysm and the second was a carotid bruit.

The following excerpt further illustrates how the nurse practitioner attended to his home situation as a part of his health care. She attended to his functional status and not just to his disease. She explains that she managed the complexity of the situation by focusing on one aspect at a time and by realizing that this really was a complex case and it was taking her long to complete her assessment because it was difficult, not because she was incapable of doing it. She continues:

> He's doing remarkably well. He's seventy five. He doesn't have much longer to live, but the quality of his living situation is a lot better and he's like an old croney of mine. I mean I don't see him that often now, but when he first rolled in the door I thought I was going to die. I said "This is awful--how am I going to manage?" He had multinodular goiter and he just had a slew of things. I said "How am I ever going to approach all these things?" And I just took one thing at a time. On certain visits you focus on a certain thing. I really applied all those things I learned to a real situation so now I am able to spend a half an hour to forty five minutes with him and get most everything done. I feel like I'm his permanent care provider--it's just a lot of satisfaction.
>
> I was nervous about doing his preop physical. He was going in for abdominal surgery and here I was doing

> his preop physical. And I just made sure that I had done everything. I felt so responsible, you know, I'm signing my name that he's OK to go to surgery. What if he has a heart attack during surgery? What if...?

Managing this complex situation over time gave the nurse practitioner a lot of satisfaction and increased confidence. She was rewarded by her diagnostic findings; her patient's continued stability; improved family situation; and her satisfying relationship with him. This case was particularly significant for her because it was the first time she had to assume responsibility for such a complex patient and she found that she was able to manage quite well.

The paradigm cases described refer to significant turning points in the practices of these nurse practitioners. They refined theoretical knowledge through application in actual situations and further developed their practical knowledge and skills. By describing these experiences, the nurse practitioners were able to share the knowledge embedded in their practice and learn from one another.

Summary

Understanding the aspects of practical knowledge identified and described by Benner (1983) is enhanced by discussion of exemplars from this study. Experienced clinicians can contribute to knowledge development through identification of exemplars and consensually validating them with their colleagues.

Chapter VI

DOMAINS OF NURSE PRACTITIONER CLINICAL PRACTICE

Interview and participant observation data were examined to determine whether the domains of nursing practice described by Benner (1984a) were evident in the practice of nurse practitioners in this study. Continuity of clinical practice from traditional nurse to nurse practitioner was a major theme that surfaced in the text. This study is an extension of Benner's work which she describes as "a dialogue with nurses and nursing" (1984a, p. viii). That dialogue is continued here with nurse practitioners and nursing in order to characterize the practice of nurse practitioners.

Ambulatory Care Nursing Practice

Two of the domains of nursing practice identified by Benner, specifically: The Diagnostic And Patient Monitoring Function Of The Nursing Role and Administering And Monitoring Therapeutic Interventions And Regimens, were combined and incorporated into a broader domain which characterizes the health maintenance and prevention focus and relative decreased acuity of patient problems in ambulatory care. This domain is depicted in Table 6.

Table 6

DOMAIN: MANAGEMENT OF PATIENT HEALTH/ILLNESS STATUS IN AMBULATORY CARE SETTINGS

Areas of Skilled Practice:

Assessing, Monitoring, Coordinating, and Managing the Health Status ofPatients Over Time; Being a primary care provider

Detecting Acute and Chronic Diseases while Attending to The Experience of Illness

Providing Anticipatory Guidance for Expected Changes, Potential Changes, and Situational Changes

Building and Maintaining a Supportive and Caring Attitude Towards Patients

Scheduling Followup Visits to Closely MonitorPatients in Uncertain Situations

Selecting and Recommending Appropriate Diagnostic and Therapeutic Interventions and Regimens with Attention to Safety, Cost, Invasiveness, Simplicity, Acceptability, and Efficacy

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Assessing, Monitoring, Coordinating, and Managing the Health Status of Patients Over Time; Being A Primary Care Provider

Definitions of primary care abound in the literature. In keeping with Millis' comment that "there are almost as many definitions of 'primary care' as there are speakers and writers who deal with the subject" (1977, p. 443) it was decided to let the study participants define what primary care means to them. In most cases the nurse practitioners referred to the following 3 major aspects of primary care: 1) continuity, 2) contact with the health care system, and 3) comprehensiveness. In the following interview excerpts the nurse practitioner participants define their concepts of

primary care and being a primary care provider.

> Nurse practitioner: What primary care means to me is that I am the initial source of care to all my patients. They know that when they have a problem, I'm the person to call. When they have a question, I'm the person to call. Not that I always handle all of their problems, but I am the triage person.
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> * * *
>
> Another nurse practitioner: The nurse practitioner is the one constant in a lot of the lives of the patients who come in. We're the person that knows them the best. If they come to medical clinic and are seen by a physician, most of the physicians are here on a rotating basis and the longest they are ever here is a year and even during that time they may rotate out for 3 months and then return. So we know the patients better as people. We know their health histories better and we know what they look like. I think we're better able to judge changes in their health status. We basically care for them on a repeat basis. We are the providers that they look to be seen by. Sothat's one definition of a primary care provider; the person that someone turns to on an ongoing basis.
>
> * * *
>
> Another nurse practitioner: To me being a primary care provider means taking care of the total person--what their concerns are, what my concerns are and merging those along with education, health maintenance, disease prevention, and psychological as well as physical needs.
>
> * * *
>
> Another nurse practitioner: We are providers that are here and we try to make ourselves accessible. The patients learn after a few times that we will return their calls and that we are available. If we see them once and they don't get better, we'll see them again and try something else. We know how to refer them. We are about the only real patient advocates for the outpatient department.
>
> * * *
>
> Another nurse practitioner: As a primary care provider, I really enjoy visiting with patients and following them. I've been here 10 years and I have a lot of patients that I've had in my clinic for nearly that long. Some of them over the course of those 10 years have developed numerous problems and we've gone through a lot together--exploring, trying to find out what's going on; referring, treating, and seeing progress or lack of progress. It's nice to be able to follow people for a long time.
>
> * * *
>
> Another nurse practitioner: They know that I'm going to be here. It's good to have the same person here. They

> trust me and they're able to tell me if they don't like a certain medication because I always tell them "If you don't like something, we can always change it."

These definitions of primary care described by the nurse practitioners point to attentiveness and knowledge of the person developed over time. Continuity and caring are evident in the descriptions.

Several of the interview excerpts refer to just how much primary care is actually provided by specialists. The provision of primary care by specialist physicians has been a topic of concern for many years since specialists outnumber general practice physicians (Aiken, Lewis, Craig, Mendenhall, Blendon, & Rogers, 1979). The data in this study indicate that the specialists in the four study sites--all large medical centers afiliated with major universities, do not provide ongoing comprehensive care with any consistency and that the nurse practitioners really fulfill a basic need in terms of providing primary care. There are of course variations, for example, there were indications that arthritis specialists who view arthritis as a systemic disease are more likely to consider the whole person than perhaps a gastroenterologist who focuses on diagnosing a particular disorder. The familiar pattern of patients going to a variety of specialists for their different complaints makes a primary care provider who keeps track of the whole picture and puts the total person back together again essential. As one nurse practitioner states:

> For example, the man I saw today, most of his care needs to be provided by specialists in crisis

> situations such as a GI bleed, or an eye bleed. But he keeps coming back to me to keep track of things so he doesn't get lost.

Another nurse practitioner states:

> The clinic physicians rotate and they don't see the patients as their patients. They treat a part of them and don't consider the whole. What happens for instance is they may see a patient in the ER and advise that the patient be seen for followup, but never initiate it or set it up. So you see the patient sometime later and look in the chart and see that the referral was never made. It's a big problem. The specialty clinics tend not to take responsibility for patients on an ongoing basis. So nurse practitioners in the Walk-in clinic pull it together for the patients here.

Another nurse practitioner describes primary care:

> Well, I think sometimes it just means coordinating the patient's care. For example, in my clinic today, 2 of the 4 patients I saw I didn't even examine. To me primary care means looking out for the patient's overall care and being their spokesperson. Also attending to their general health maintenance. I think that I've found things that way that wouldn't have been found if the patient just had sporadic care. For example, I've picked up some polyps and colon cancer just by doing routine physicals when the patients didn't have any complaints.

These excerpts highlight the need for coordination of primary care as well as patient advocacy. In addition, the potential for detecting significant problems early before symptoms develop is suggested by these excerpts. The nurse practitioners frequently refer to keeping track of the patients so they don't get lost in the system. They recognize that highly specialized, high technology care tends to be fragmented and fails to take the patient as a whole person over time into consideration.

Another nurse practitioner mentions that primary care is usually defined in terms of emphasizing health

maintenance, teaching, and risk factor reduction, but she points out that sick people really need good care and skilled people too. She comments "I'm really good at taking care of sick people." This is a very important point especially in view of the fact that people are being discharged from hospitals sooner and they have to be quite ill to be admitted. Therefore, in this age of cost consciousness, very ill people are in need of continuous followup on an ambulatory basis. The following description of situation #94 was offered by one of the nurse practitioners as a exemplar of being a primary care provider.

> Nurse practitioner: The patient I am thinking of is a 74 year old man who has been in my clinic for about 5 or 6 years now. Initially his main problems were hypertension and diabetes. He's been on insulin for about 20 years. Both of these problems were fairly stable. Then various things have come up with him over the years that I've followed him. He had a problem with severe pain in the foot and we tried a variety of things, such as medication and physical therapy. He was referred to podiatry and orthopedics and everybody tried to figure out what was going on. The problem was finally resolved. Then the next thing that came up was his hypertension became unstable and difficult to control. He actually had to be admitted to the hospital twice for blood pressure control. That problem was eventuallycontrolled.

This excerpt depicts the important services that the nurse practitioner provides in terms of referring the patient for diagnosis and treatment for additional problems as they arise; following up on the care provided; and generally overseeing the management of the patient's care in a comprehensive fashion.

The nurse practitioner continues:

Then at one point, the podiatrist that he had been referred to noticed that he was a diabetic and referred him to endocrine clinic. The specialists frequently ignore previous notes and fail to pay attention to the fact that the patient is followed by a nurse practitioner on an ongoing basis. They don't see nurse practitioners as primary care providers and refer the patient to some other specialty clinic for care often inappropriately.

Certainly in this instance, the endocrine referral was inappropriate because I'd been managing his diabetes for years and it was well controlled. I think he went to endocrine clinic once or twice and then he came back to me and said "I don't see any reason for me to go to that clinic. You know more about my problem than they do and you've been doing more for it. I'd like not to go to the next appointment there. I'd like to cancel it." So that made me feel good.

Investigator: I'm sure, he was a new patient to them and they probably asked him all sorts of questions that you already knew about.

Nurse practitioner: Yes. And his relationship with me was already established and comfortable.

This excerpt highlights the need for recognition of the significant contribution the nurse practitioner makes to ongoing comprehensive care. The nurse practitioner coordinates and follows up on care provided by other health care providers and prevents the unfortunate consequences that could result from haphazard care.

The nurse practitioner continues:

Then the next thing we went through with him was severe back pain and he ended up having a laminectomy. After the surgery he developed leg pain and eventually had to have a fusion which resolved the problem. Now the most recent thing that has come up is severe abdominal discomfort and bloating. So far everything has been negative and it appears to be diabetic gastroparesis. Medication has not improved things.

Each time he comes in he looks to me like I'm going to have an answer for him and be able to take care of his problem because we've gotten him through so many other problems over the years. And most of the time it wasn't something that I did, but I got him

> referred to the right place to get taken care of.
> Now he expects me to be able to help him and so far his problem hasn't gotten better. He gets some relief from eating small frequent meals, but that's all that helps. On top of all of his problems, his wife had a mastectomy about 2 years ago. She is doing well, but I supported him through some of that. We've been through a lot together.

This excerpt illustrates the supportive relationship that develops betweeen the nurse practitioner and the patient over time. The nurse practitioner states "we've gone through a lot together." She has firsthand knowledge of the patient and significant people and events in his life. Even though she does not treat all of his health problems, she plays an important role in identifying them and sending him for consultations. The nurse practitioner has successfully managed his hypertension and diabetes over time and the patient has faith in her ability to take good care of him. She has supported him through many problems over the years and the he trusts her ability to determine what is in his best interests because she knows him well. The following excerpt shows this trust:

> After every study that he had he would come down here with his chart to give me the note and would ask my opinion. He would say "This is what they want. Do you think it's all right? Do you go along with this?" So he really looks at me as his care provider because of so many things that we've gone through together.

Again, the nurse practitioner comments that they have been through a lot together. This points to the personal and egalitarian nature of their relationship. They are partners in health care. Both the nurse practitioner and the patient are involved and committed to this man's health and comfort.

Detecting Acute and Chronic Diseases While Attending To The Experience of Illness

Kleinman, Eisenberg, and Good's (1978) distinction between disease and illness is useful for understanding this competency. They state that:

> Modern physicians diagnose and treat diseases (abnormalities in the structure and function of body organs and systems), whereas patients suffer illnesses (experiences of disvalued changes in states of being and in social function; the human experience of sickness). Illness and disease, so defined, do not stand in a one-to-one relation (p. 251).

This distinction underlies the differentiation between medical diagnoses (labeling diseases) and nursing diagnoses (categorizing responses to diseases). One of the nurse practitioners states it succinctly as follows:

> I always try to keep in mind if it is a real disease, how is the patient dealing with it? If they have a real disease, how are they responding to it? Is there anything I can do in both areas? What can I do to help facilitate the diagnosis and treatment of the real disease and what can I do to help the patient psychologically deal with it in the brief time that the patient is with me? These things both have equal weight in my practice.

This nurse practitioner skillfully distinguishes between what she calls "real disease" and the patient's responses to symptoms in the context of current stressful life circumstances and events. To enhance her ability to perceive the situation accurately, this nurse practitioner incorporates life experience questions into the history, such as "What's going on in your life right now?" She comments that the two times she did not attend to the patient's life circumstances, "it got her into trouble." She

describes one of these situations as follows: "I got hung up trying to make a physical diagnosis, and didn't ask the patient about something in his life and he went out of here and made a suicide attempt."

She comments that it is really important to her to determine, either on the first or second visit, what is really going on in the patient's life. She asserts that "I think it's as important as the temperature, blood pressure, or anything like that" and explains:

> I have a personal belief that what else is going on in a patient's life in general is a lot of what makes people unable to handle any kind of physical symptoms they're having at the moment. Sometimes when they are in a crisis, their physical complaints get much worse and that's what brings them here. I mean when you ask them the chief complaint and ask why they came today instead of any other day, they often can't tell you "My life is falling apart and I hurt worse." So that's just the premise that I come from, that that's true for a lot of people. And when something doesn't add up to a real disease, then what really is going on here?

This nurse practitioner's practical knowledge enables her to distinguish between disease and illness. She comments:

> Sometimes I just know. And maybe it's intuition. We talk a lot about what intuition is and I think it's experience--a lot of experience that short-circuits some thinking processes or skips over a lot. It's hard to tell what it is, it's like looking at a patient in the waiting room and knowing he's a sick person.

She points out that the reverse of knowing when someone is sick, i.e., knowing when they're not sick is the complement of this perceptual ability.

Situation#112 is an exemplar which illustrates the ability to distinguish between disease and illness.

> Nurse practitioner: A young, 38 year old man came in complaining of pressing chest pains and shortness of breath at rest or with exertion. The episodes were 5 to 20 minutes in duration and were resolved with rest. Nothing else added up. And he kept saying "my wife wants to know about heart disease, my wife wants to know about diabetes, my wife this and my wife that." And I just made a connection and asked "How is your wife?"
>
> Well it turned out that his wife has diabetes and just gave birth to their 6th stillborn baby. She wanted a baby very badly and the man said "I can't take this anymore. I cannot go through this anymore." I asked if he had any other children and he said "Well, I was married before and we had a 3 year old and when I was away in the service my wife had a car wreck and the baby was killed, and that's what broke up our marriage." And I--we were both sitting there like this--holding our heads in our hands and I thought "He doesn't have heart disease, he has HEART disease."

This excerpt illustrates the nurse practitioner's ability to rapidly hone in on the accurate region of the problem. It demonstrates her skill in making qualitative distinctions with regard to heart disease. She had never seen this patient before, yet she was able to recognize that his history of chest pain did not fit the typical picture, she noticed his repeated references to his wife, and made the man feel comfortable enough and trusting enough to tell her about his anguish.

Providing Anticipatory Guidance for Expected Changes Potential Changes, and Situational Changes

There was abundant evidence in the narrative situations and participant observations that the nurse practitioners provide anticipatory guidance to patients to help them prepare for and cope with changes in their lives. In situation #101 the nurse practitioner provides anticipatory guidance for the 60 year old man who was paralyzed on his

left side from polio. He came for periodic health maintenance and health screening visits. The nurse practitioner checked his prostate and taught him about prostatic hypertrophy to help him be prepared for this if it should develop.

An exemplar of the competency providing anticipatory guidance is provided by situation #62. The patient was an 84 year old man who had been seeing the nurse practitioner for 6 years. He had a pacemaker inserted because he developed heart block. He lives with his wife who has had a stroke. He complains to the nurse practitioner that he and his wife used to shop together, but now he has to do all the grocery shopping. He is very concerned about his health and calls the nurse practitioner about once a week about things like his pulse rate. Both his primary care nurse practitioner and the nurse practitioner in the pacemaker clinic have assured him that his pulse rate of 84 is fine. He recently had an exacerbation of his congestive heart failure and was sent home after a brief hospital stay. His exercise tolerance has decreased and he complains to the nurse practitioner that he has still not regained his energy and is not as active as he was 6 months ago.

The nurse practitioner's goal is to try to help him readjust to an altered baseline. She tries to do some anticipatory guidance to help him plan for a place where he and his wife can stay that has more services and supervision than staying in their own home. They refuse to get Meals on

Wheels because they do not like it and he resents depending on his sister-in-law to take him shopping, so the nurse practitioner thinks they would be better off in a setting with meal service and supervision. This is an example of recognizing the decreasing health and agility of an elderly couple and trying to help them prepare for the future. The nurse practitioner has established a longterm relationship with this man and she acts as a sounding board for his complaints about his wife and his sister-in-law. She attends to the concrete details of how to cope with decreasing function with increasing age and illness in the context of his life circumstances.

Building And Maintaining A Supportive And Caring Attitude Towards Patients

This competency is particularly difficult to build when the patient's lifestyle is significantly different from the care provider's. There were several examples of situations where the nurse practitioners were able to establish relationships and stay connected with patients who had very different lifestyles. The following excerpt from situation #88 illustrates this skill quite clearly.

> Nurse practitioner: I have one patient in my clinic that I've actually seen since I was a student. He is in his early 40's and he's diabetic. He weighs about 360 pounds and is 6'7". He's a biker and wears all this leather clothing. He used to drink heavily, use a lot of drugs, overeat, and just had a terrible lifestyle. But I have kept him in my clinic because even though he hasn't lost a lot of weight and I don't think he's stopped smoking, he has made some lifestyle changes. He has stopped drinking quite as much; I think he only uses drugs on special occasions; he takes his insulin

every day; he checks his urine periodically and while I can never imagine living that way, I think he has made progress that he wouldn't have made if I had sent him to the rotating resident clinic.

He and I have established rapport and he knows that when he comes in the dietician and I are both going to yell at him about his weight. He knows that I'm going to ask him about his drugs and alcohol. And so, over time, he's tempered these things and he's gotten so he'll ask me about other things that are bothering him. For example, I told him how to get into the family study unit because he was having premature ejaculation. And things like this have come up over time that wouldn't have come up just in one visit.

This excerpt illustrates the nurse practitioner's ability to accept the patient on his own terms and to show nonjudgmental positive regard for the person as a fellow human being. This is an example of the egalitarian relationship that nurse practitioners establish with patients. It is also another illustration of the importance of continuity in achieving changes in health habits.

Scheduling Followup Visits to Closely Monitor Patients in Uncertain Situations

A common strategy for managing the uncertainty or indeterminacy of clinical situations is to monitor the patient closely with frequent followup visits. The following description of situation #4 illustrates this competency.

Nurse practitioner: I have one woman who is 70 years old and she's been my patient since I was a student, so that's about six or seven years now. She came from the southeastern United States where she had been hospitalized for congestive heart failure. In all the period of time that I've seen her, she's never been hospitalized.

And her things are simple and complex, but if you were putting it in terms of health care, if you define it as wellness and illness--it's bigger than that. Some of my time for her is spent writing letters to the housing authority so she can get a senior citizen's apartment. And I want her to stay well and I guess

> that's part of the reason that I may see her more frequently because I feel that with more contact at least I can see how she's doing.
>
> She lives alone. She has family, but she lives alone. And the fact that she comes and she always keeps her appointments and is very conscientious about it means that it must fulfill something for her. And she stays well.

This excerpt illustrates the effectiveness of frequent personal contact with a care provider. The nurse practitioner monitors this woman's health by attending to her diet, her medications, her blood pressure and cardiograms, as well as more general concerns such as her housing needs. The woman feels cared for and she stays well. In the six or seven years that the nurse practitioner has been following her she has never had any hospitalizations and no episodes of congestive heart failure.

Selecting and Recommending Appropriate Diagnostic and Therapeutic Interventions and Regimens with Attention to Safety, Cost, Invasiveness, Simplicity, Acceptability, and Efficacy

There was ample textual evidence that the nurse practitioners in this study emphasize low technology, nonpharmacologic interventions. This provides additional support for Martin's (1983) finding that family nurse practitioners provide more low technology interventions when compared with family practice physicians. In the following excerpt a nurse practitioner describes how she provides low technology care with frequent followup visits for monitoring and emotional support:

> One day I went to one of the consults to sign a bunch of prescriptions and she said "You know, you give more vitamins and normal saline nose drops than anybody I

> know." And I realized that when I think about it, I don't give a lot of prescriptions or a lot of drugs. And when I do (because lots of times I find there are certain patients that are locked in to getting something), I tend to give vitamins.
>
> If I was going to describe care I know that in a lot of situations even though we're supposed to see people once a year or once every six months, there are certain patients that I see more frequently than that when there isn't even a quote "medical" indication that needs close monitoring. Maybe I see them every 6 weeks or every two months and mostly it's because they need contact.

This excerpt shows the nurse practitioner's willingness to see patients for nonspecific supportive visits. Even though it is not clear precisely what these visits provide and their cost effectiveness cannot be proven, the nurse practitioner senses that the close and frequent contact is an important link in health maintenance and illness prevention. The patients feel cared for and they remain stable.

Another example of the emphasis on low technology interventions was provided by participant observation of a nurse practitioner/patient visit. During a visit with a newly diagnosed diabetic man who was overweight, the nurse practitioner stressed the importance of keeping his weight down. She explained that with weight and diet control he may not require any medications for management of his diabetes. She scheduled an appointment for him to discuss his diet with the dietician and paid particular attention to the distance he had to travel and what was most convenient. The nurse practitioner explored specific aspects such as meal preparation, eating in restaurants, and cutting down on

eets with the patient. This attention to concrete details important for promoting understanding and the ability to tually carry out recommendations.

Two of the nurse practitioners practice in a pertension clinic where they emphasize nonpharmacologic terventions for controlling high blood pressure. They ually don't start patients on drugs on the first visit and to control the blood pressure with weight loss and low t diets and they emphasize patient education and active rticipation in care. One of these nurse practitioners mmented that she can usually really see a difference tween the first and second visits in terms of the blood essure level. She attributes this to decreased stress and plains it as follows:

> They know who we are; they know where the clinic is; they don't have to worry about what we are going to do to them. We've already told them what we're going to do. They know what's going to happen.

e adds that "we have a lot of patients who are referred to e clinic that were started on medications--just like that, d we take them off and they do fine."

A nurse practitioner who works in employee health scribes her attention to nonpharmacologic, low technology re as follows:

> When someone comes in for low back pain, rather than automatically getting x-rays and putting them on tylenol with codeine and muscle relaxants and everything else, I just try to figure out why the client has back pain. I try to explain to him or her how to do back exercises and how to sit properly and that sort of thing. About the only thing you need is a heating pad and some aspirin or something like that. You don't have to use real sophisticated medical

technology for a lot of things. The back pain may be totally due to using poor body mechanics or sitting improperly and if you don't change that it's not going to help and you can give all the drugs in the world and it's not going to make it go away. So I think it's a matter of a different approach to problems, that sometimes you have to change your lifestyle or your habits.

Investigator: So would you say in most cases if there were a choice that you would choose a way other than a pill?

Nurse practitioner: Yes. For instance, I had a person in here this morning for a pre-employment checkup. She's 4' 8" and she's a ward clerk. She said that she has chronic back pain. It's no wonder, this is a big person world. She's at a big person's desk; sitting in a big person's chair; driving a big person's car and she's complaining about low back pain. Well, an orthopedist may have given her a muscle relaxant, but basically when you look into it, it's because she's so short that she's really straining her back. She's really putting strain on her back in everyday life. We discussed things that she could do to make her closer to her work area and we talked about exercise and that I think is more helpful to this person in the long run. She's not overweight at all, but her muscle tone is not that great, so exercises can help her back.

Investigator: And how did she react to all that?

Nurse practitioner: Oh, she thought it was wonderful. She never knew why she had back pain. Her mother has it and so she figured that she had to have it too. Her mother is also short and probably has the same sort of problem.

This excerpt points to the nurse practitioner's application of medical and nursing knowledge in attending to everyday activities, such as driving and sitting at work and personalization of these to the individual, in this instance her short stature. She attempts to alleviate problems by recommending individualized lifestyle modifications rather than simply relieving discomforts with medications.

Another nurse practitioner relates her theory of care

d provides another exemplar of low technology care.

> Nurse practitioner: My theory is that as much as giving the right diagnosis or ordering the right tests or giving the right medicines, it's your attitude and how you talk to people that counts. Some people I can't do anything for, but I can be nice to them or help them to get what they need. Like the other day, I had a man in my clinic who had polio in 1956. He's probably 60 and I see him annually to do a physical and teach him about his prostate. It's like the ideal nurse practitioner/patient contact. He's not too sick, I do patient education, check him out and see if anything's changing, and try to anticipate what may develop as he gets older.
>
> He had some shoes on that he said were 35 years old--very expensive, well-cared for shoes that he had resoled, but to get them adapted to his brace he had to go to a special subsection of the prosthetics department. So for that patient, he doesn't need the CAT scan, or the computerized lab, or all that stuff. He said that the most important thing we could do for him was to adapt his shoes for his braces.

This excerpt illustrates the nurse practitioner's lity to maintain interest in helping people get what they ed to enable them to manage their everyday lives in the sence of specific problems that require diagnosis and eatment. The nurse practitioner describes the ideal nurse actitioner/patient contact as involving patient education, ntinuous followup to detect changes, and anticipatory .dance.

nitoring And Ensuring the Quality of Health Care Practices

The areas of skilled practice in this domain were nsiderably expanded on from Benner's work (see Table 7).

ble 7

MAIN: MONITORING AND ENSURING THE QUALITY OF HEALTH CARE PRACTICES

eas of Skilled Practice:

roviding a Back-up System to Ensure Safe Medicaland Nursing Care
*Developing Failsafe Strategies When Physician Consultation is Judged Inappropriate

ssessing What Can Be Safely Omitted from or Added to Medical Orders

etting Appropriate and Timely Responses from Physicians
*Using Physician Consultation Effectively

elf Monitoring and Seeking Consultation As Necessary

iving Constructive Feedback to Physicians and Other Care Providers to EnsureSafe Care Practices

te. from Benner, 1984a, p. 137.
*indicates competencies identified in this study.

oviding a Backup System to Ensure Safe Medical and Nursing Care*Developing Failsafe Strategies When Physician Consultation is Judged Inappropriate

As described by Benner this competency requires the use discretionary judgment by the nurse in weighing nflicting priorities and needs. Nurses develop skill in ndling conflicts with physicians about appropriate nagement of patient problems. This skill is further eloped and expanded by nurse practitioners in ambulatory e. Edmunds (1984) delineates four factors that influence se practitioner behavior in the face of nurse

practitioner/physician conflict over the appropriate treatment plan as follows: 1) experience as a nurse practitioner and how secure she feels about her own level of competence; 2) the nurse practitioner's assessment of the physician's competence; 3) the degree of risk involved and whether the patient or the nurse practitioner assumes it; and 4) the nature of the nurse practitioner/physician relationship.

The following excerpt in which the nurse practitioner relates a paradigm case from her training period highlights these four factors. The situation illustrates how the nurse practitioner has come to use a failsafe strategy in obtaining appropriate consultation for her patients.

> Nurse practitioner: I was doing a history and physical on one of the in-patients and discovered what I thought was a rectal mass. And I had the preceptor physician there double check it and he felt it was okay, that it was normal tissue. But, the guy turned out to have a cancer and had surgery. And I guess that brought home to me early that just because I might have less experience doesn't necessarily mean that I might not be right in my examination.
>
> Investigator: And how has that affected you in the aftermath?
>
> Nurse practitioner: Well, probably not so much in the first year that I graduated because everything is hitting you and you don't even come off that high the first year, but I think after that it makes you go more with your own feelings sometimes and to double check something. So that if I get a physician to double check something because I don't feel comfortable with it and he ignores it, I'll probably do a failsafe with that patient and I'll have him come back the next week or I'll do something so that he won't fall through the cracks.
>
> Investigator: Do you ever have the opportunity if you're not particularly pleased with the way somebody

> responds to your question, to ask another physician or are you limited to just the one that is available that day?
>
> Nurse practitioner: You might not get that opportunity that same day, but you bring that up with someone that we trust more.
>
> Another Nurse practitioner: Or we'll bring the patient back on the day that another attending is there.
>
> Nurse practitioner: That's something that we do a lot. It isn't always possible to get somebody that same day to come back and double check them. I have done it, but it's tricky to try. I mean there are times that I've ended up sneaking down to the Chief of Ambulatory Care to rediscuss a case because I'm not comfortable enough to send the patient home that day.

Utilization of a failsafe strategy which was aptly labeled "collateral consultation" by one of the nurse practitioners was commonly described by the study participants. This competency involves recognition of the uncertainty in clinical situations. It takes some time for nurse practitioners to realize that they may get five different recommendations from five different physicians for the same patient problem. While they are acquiring this awareness they are also gaining experience with clinical situations and over time they come to trust their own clinical judgments in patient situations and learn to balance this against the physician's advice so that they can determine when they really need another opinion.

Assessing What Can Be Safely Omitted From or Added To Medical Orders

This competency identified by Benner as evident in the practice of hospital nurses was not highlighted in this study. In ambulatory care the nurse practitioners are

essentially in charge of their patients and they write the orders with physician consultation as they deem necessary.

Getting Appropriate and Timely Responses from Physicians
*Using Physician Consultation Effectively

Hospital nurses develop skill in communicating clearly and convincingly to physicians. This skill is further developed by nurse practitioners in ambulatory care where they learn to use physician consultation effectively. This is a complex competency which involves recognition of the uncertainty of clinical situations, security in one's identity as a nurse, a broad base of knowledge, the establishment of mutual trust, and finely tuned communication skills.

In one of the study sites a physician was specifically in the clinic setting for the purpose of consulting with the care providers. In the other sites physician consultation was not so readily available and nurse practitioners had to develop strategies to obtain consultations without undue delay for their patients. During participant observations of the nurse practitioners there was evidence of a bartering strategy that the nurse practitioners developed to obtain consultations. For example, one of the nurse practitioners assisted a physician in finding out where a lost patient was supposed to be and when she later needed a consultation she told the physician "It'll be quick. I helped you find where that patient belonged."

The nurse practitioners developed considerable skill in presenting a concise, relevant presentation of the patient's

situation so that consultation could be effective and quick. There was of course variablilty in the quality of the presentations depending on the nurse practitioner's experience and skill. Nurse practitioners with more experience were observed to complete their presentations with their assessment of the situation and proposed plans while those with less experience tended to be unsure about their assessments and asked the physician what they should do instead of formulating their own ideas. As the nurse practitioners acquired experience they got to know the preferences of their physician consultants and would selectively choose a physician they expected would be in agreement with the plan they had in mind. This skill requires a high level of clinical expertise, as well as in-depth knowledge of the physician's approach.

Nurse practitioners assume responsibility for diagnosis and treatment of patients' presenting complaints. In carrying out this responsibility they may consult with various resource persons, however in most situations, it is the nurse practitioner and the patient who make the decision about what to do. In situations where admission to the hospital is an issue, the nurse practitioner is responsible for the patient up to the point of admission and then physicians in the various services of the hospital assume responsiblity for the patients' care since the majority of nurse practitioners have no authority regarding hospital admissions. (There were 2 exceptions in this study, a nurse

practitioner who was a midwife and a nurse practitioner who worked with dying patients both had some hospital admission privileges). Being responsible for careful evaluation of patients and recommendation for hospital admission with no authority to finalize the admission is a particularly complicated state of affairs. The nurse practitioners need both highly developed communication and clinical skills to present a convincing case for admission to admitting residents who are often overworked and haven't seen the patient.

A major theme that surfaced in the situations described was frustration and conflict over hospital admission decisions. Assuming responsibility for assessing a patient's health status and recommending hospital admission is an area where nursing practice intersects with medical practice. These situations highlight subtle distinctions between nursing and medicine and illustrate how the nurse practitioners need to develop skill in supporting a patient's admission using language and rationale (i.e., making interpretations) that the admitting physicians consider reasonable. The following situations depict these subtle distinctions.

Situation #87 illustrates the nurse practitioner's orientation to assessing the total picture of the client in the context of his life situation.

> Nurse practitioner: The man was 92 and was huffing and puffingat 26 respirations per minute and this was at rest. I thought he was in respiratory distress. His

> chest was congested and that was after a respiratory therapy treatment. He lived at home with his wife who was rather weak. I was afraid that he was going to die if he went home and had to care for himself.
>
> The attending physician saw the patient and thought that he could go home. I told the attending that I felt uncomfortable sending the patient home even if the x-rays and blood gases came back negative. He replied that if it was a case of admitting or not admitting then we would need additional lab work. I didn't understand. I said to myself "Now what is that going to tell you about admitting a patient?" It was as though he thought that all you need are lab results before you can admit a patient. But, I said to myself, "No, I'm sorry you ought to be able to look at a patient and get a cumulative history and decide whether or not he needs to be admitted."

This excerpt shows the nurse practitioner's frustration over being unable to present the case for admission convincingly enough. She had prior experience in respiratory intensive care and felt quite sure of her assessment that the patient was indeed in distress and was too weak to care for himself at home. This excerpt illustrates the physician's concern with allocation of resources and cost effectiveness because of his responsibility for hospital admissions.

Another nurse practitioner describes situation #98 which further illustrates the nurse practitioner's attention to the whole situation.

> Nurse practitioner: I saw a patient who had pneumonia. He also has a really complex underlying condition that has not been determined specifically, but is possibly Wegener's granulomatosis--something that I'd never heard of. His wife called and said that he was real sick and wanted me to see him. So he came in and he was cyanotic--his lips, his ears--his color was just horrible and his chest x-rays showed several infiltrates. I had the attending come in and listen to him and look at the x-rays and right away decided that he obviously needed to be admitted.
>
> He really looked bad and I was concerned that he

was going to have a respiratory arrest here in the office because he looked so horrible. So we put him in the ER and started an IV, sent off for blood gases, started oxygen, and then called the admitting resident upstairs and gave him that history. And he said "Well, you don't have the blood gases back yet--how do you know he's ill enough to be in the hospital?"

And I was furious! This man was sick! He looked bad; he was weak; he wasn't eating; he was cyanotic...He was a sick person and even without those lab values, we (the attending physician and the nurse practitioner) still felt that he needed to be admitted.

Investigator: Why was there such reluctance to admit him?

Nurse practitioner: They felt "What's pneumonia?" His PO2 came back 60 which is still borderline and they felt that he could be treated as an outpatient with antibiotics. He was finally admitted after we got the Chief of Ambulatory Care involved. But, it's very frustrating when you see somebody that you know is sick and you have to struggle to get him admitted.

I think that nurses often just have a gut level feeling and especially after 10 years of working here, there are not many people that I really get nervous about and really have that feeling about, but there are certain ones that I do and I know that they are sick and would be better off in the hospital.

This excerpt clearly shows the nurse practitioner's attention to the whole situation and her clinical ability to sense when a patient is very ill. She states that she"felt nervous" and explained that she does not often get nervous about a patient's condition unless it is warranted. She knew this patient well and could tell that he was very sick.

Pneumonia may not necessarily be an indication for hospitalization, however, in this situation the patient had a complex underlying condition which complicated the situation. The nurse practitioner explained that her frustration resulted from having a certain amount of independence and a lot of responsibility in terms of

assessing and monitoring the health status of clients, but then having no power or authority for admitting someone to the hospital.

The nurse practitioner may not have authority for admitting patients to the hospital, but she does have some power. The power is that which derives from being an expert clinician. Over time the nurse practitioners develop their clinical acumen and they gain a reputation for being able to detect and predict significant problems and seeking admissions that are indeed indicated. A problem that prevents the transmission of the knowledge that a particular nurse practitioner is an astute clinician is that admitting residents often rotate and change over the years. Therefore, nurse practitioners are faced with having to prove their clinical ability to different residents over and over again.

Several nurse practitioners who have been in practice for more than 8 years have begun to develop strategies to handle these conflicts more constructively. They have capitalized on the fact that although the admitting residentschange, the attending physicians tend to remain their permanent consultants. They have begun to establish negotiations with the attending physicians such that if the attending physician sees the patient and agrees that hospital admission is warranted then the patient will be the attending physician's responsibility if the resident refuses to admit the patient. This has the potential for being a very effective strategy for decreasing the nurse

practitioner's frustration because they explain that the most frustrating situations are when a patient waits around all day for an admission that both the attending physician and the nurse practitioner agree is clinically indicated and then the resident refuses to admit the patient because of inadequate manpower or other resource deficiencies and the patient is sent home. This strategy is not however in the patients' best interests since it involves the nurse practitioner giving up her advocacy for the patient. The following excerpt illustrates one nurse practitioner's frustration over these struggles:

> Often times to get a patient admitted can bea real uphill battle.First we go to our attending who then sees the patient and if it's agreed that admission is indicated then you talk to the admitting resident who starts arguing about why the patient shouldn't be admitted. And I've just reached the point where I just say "Look, if you don't like this, you can talk to the attending." I'm just not even going toget into it anymore.

This excerpt illustrates the repetitiveness of these struggles. Several nurse practitioners talked about feeling powerless to change this state of affairs. Of particular concern here is the potential for the nurse practitioners' to become discouraged over repeated unsuccessful struggles to admit patients with the result that their arguments in support of hospital admission for patients may become less cogent and their commitment to advocacy for patients' needs in these situations may weaken.

The following excerpt takes place just after two nurse practitioners have related that a patient with pneumonia

over whom there was an admission struggle had been discharged the next day.

> Nurse practitioner: The fact that even though you struggle and get the man admitted, yet he gets discharged the very next day. If I thought about that I would go nuts.
>
> Nurse practitioner colleague: Yes, you have to shut that part out because you have no more responsibility.
>
> Nurse practitioner: And you don't have control over it. There's just nothing you can do.

This excerpt illustrates the particularly difficult situation that the nurse practitioner is in with regard to hospital admissions. After struggling to get a patient admitted to the hospital, the nurse practitioner has no control over when he or she is discharged and this is frustrating because she sees the consequences of premature release from the hospital in ambulatory care.

A potential strategy for attempting to resolve conflicts in this area of their practice would be for the nurse practitioners to collect followup data on events following such unfortunate situations to substantiate the nurse practitioners' claims and provide them with exemplars to help them present the case for admission more convincingly. One such exemplar was situation #104 (see pp. 225-226) where the nurse practitioner was sure that there was something very wrong with a patient who complained of back pain. He was sent home and the nurse practitioner encouraged his wife to take him to another hospital where cancer was diagnosed.

An exemplar which highlights the complexity of

admission decisions is situation #95. The nurse practitioner saw a cirrhotic alcoholic who had severe ascites. He denied any bleeding, but he was severely decompensated and obviously needed to be hospitalized. The attending physician agreed with the nurse practitioner that the man's condition warranted admission. The admitting resident refused to admit the man and he was sent home. He began passing blood clots per rectum that evening and died in the emergency room of another hospital the next day.

In discussing this situation the nurse practitioner refers to the problem of scarce resources and explains that there was insufficient nursing staff on the in-patient units and the admitting resident was extremely busy. The nurse practitioner relates:

> While the admitting resident was in my examination room trying to examine the patient, he had at least 5 phone calls. He was one step from screaming from the pressure he was under. It was a horrible day.
>
> Although it was frustrating for me because it was obvious that the man needed to be admitted, I didn't feel that there was a lot that we were going to be able to do for him at this point. I observed the resident and could see that he was totally stressed out and I thought if I were in his place, how would I be functioning? What kind of decisions would I be making?
>
> We all know that in emergencies (whether this could be called an emergency situation or not, I'm not sure) you have to triage and decide who you save and who you don't; who can you do something for and who you can't. It was obvious that this man was pretty far gone, so if you were going to make a choice between him say and the man with the pneumonia, maybe that was a good choice.

This excerpt illustrates the kind of situations that can occur in the health care system when cost benefit analysis alone guides resource allocation. Humanitarian

needs are not considered when patients are looked at objectively and decisions about hospital admissions are based on the principle of utility rather than patient need. There was concern that the patient's family would sue the institution. The son felt they should sue, but the wife called the nurse practitioner to thank her for caring for her husband and was obviously not inclined to sue. She realized how terribly sick her husband was and the nurse practitioner felt from what the wife told her that the staff at the hospital where the man died did a very commendable job of caring for the family. They allowed the wife in to see her husband and explained to her and her son that he died of alcoholic heart failure and would probably have died even if he'd been admitted to the hospital the day before. The wife was reassured that her husband's death was not a consequence of not being admitted. However, the nurse practitioner colleague who participated in the interview when situation #95 was described commented: "it must have been pretty traumatic for the family to watch him and not be able to do anything."

The complex issues surrounding these situations dealing with hospital admission struggles raise many important questions. The trend toward discharging patients from hospitals sooner and denying admission to those who are not considered to be sick enough or worse yet denied because of inability to pay for their care creates suffering and inequities. Nurse practitioners provide a real service to

patients by maintaining vigilant caring concern for them and for the patient's sake it is hoped that they won't give up their advocacy in the face of the commercial climate of health care where utility and cost effectiveness override good clinical judgment and concern for the patient's welfare.

Self-Monitoring and Seeking Consultation as Necessary

This is a competency of central importance to nurse practitioner practice because they practice essentially autonomously with patients and seek physician and other consultation as they see the need. Evidence for a progression from seeking consultation for almost every patientvisit to seeking consultation selectively was provided by participant observation of the nurse practitioner participants. The more experienced nurse practitioners sought consultation much less frequently and more selectively than the less experienced nurse practitioners. This finding was consistent with what was expected. Evidence for self monitoring is also apparent in the many situations described.

Situation #63 provides an exemplar of a nurse practitioner who has learned to be quite cautious about her practice in regard to minor surgical procedures. She describes a situation where she was assisting a resident who was performing a punch biopsy of a lesion on a man's forehead. The nurse practitioner relates:

He cut through the skin and through the temporal artery

and the blood was spurting out. You know you have to tie off the vessel, but when this hydrant of blood is coming out--how do you look in there and tie it off? The man was about ready to pass out. We looked at it and it was clear that when we took the pressure off, we were in trouble. So we called the surgeons and they said "you did the biopsy, you fix it."

The resident was a first year resident and tears were running down his eyes. He said "I can't stop this" and it became clear to me that the two of us were in trouble. I was clearly out of my territory. Well, what are you going to do? We're holding it and nobody will come down to help. The first thing I did to calm the resident was say "we're going to tie this off." He said "Well, I know that, but it's too bloody." If you just released a little the blood was in your face. So I said "what we have to do is clamp lower and then tie off this part" and he said "I know that," but he couldn't do it. If you just released a little the blood was in your face. How were we going to get in there and tie this thing off that's pulsating and squirting all over? It was impossible.

So I called a code and the whole team came. They were very mad and wrote it up that the code was inappropriately called, but the surgery person who came down picked up a hemostat and tied it off and it was done. He knew what he was doing. We didn't. The patient then stopped losing blood and everything was okay, but it became very clear to me that these are skills that I don't have. I didn't go to medical school. I don't know what's down under there. It's not my role and I don't want to get into it.

They all tease me now in the clinic and say "will you help with a punch?" I mean I palpate where the vessel is, I move the skin around and they laugh and say that was one in a million chances that would ever happen again. I don't like getting put in that position. I will not biopsy a leukemic patient whose white count is under 1000. They could get an infection and die and I grant you that leukemia can kill you, but... And I've just set things that if I'm not comfortable doing them--I just won't do it. They all laugh at me, but they know I won't do it. So it's clear, if I say "No," nobody can push me into doing what I don't want to do.

So I got real intimidated by surgery and every Wednesday we have surgery clinic and I can go in and suture up a hole that's this big if I have to, but there's a whole lot I don't know about it and I don't like doing it so I usually just plain refuse to do it.

This excerpt illustrates several competencies in addition to self-monitoring which include managing the

system, recognizing a potential disaster, and mobilizing resources to meet needs. This nurse practitioner has established what she considers to be the safe boundaries of her practice and she will not overstep them in spite of the cajoling of the staff she works with. She has learned not to do things she does not feel comfortable with and prepared to do.

Giving Constructive Feedback To Physicians and Other Care Providers to Ensure Safe Care Practices

Providing evaluative feedback to others for improvement is always difficult. Giving constructive feedback to physicians to ensure safe care practices is a particularly difficult skill because nurse practitioners and physicians have little opportunity for interacting and evaluating one another during their clinical training and they lack a shared background on which to build such practices. The situations related to this competency were problematic for the nurse practitioners. Situation #70 is an example of a nurse practitioner giving corrective feedback to a staff physician. The nurse practitioner relates the situation of a very nice, old, black man who was taking coumadin for prevention of a deep vein thrombosis. He was discharged from the hospital with unstable prothrombin times. His coumadin was increased 50% and he was discharged to be seen in the nurse practitioner staffed anticoagulation clinic in one week. The resident arranged for the patient to come in during the week immediately post discharge so the

prothrombin time could be checked. The nurse practitioner relates:

> So when he came in and said he had his blood drawn during the week, I called for the results. Well, it turns out that the specimen had clotted and the test was never done. Fortunately for him, he either wasn't educated about what to do or didn't understand and he ate green vegetables twice a day and kept his protime down. Well, we have now decreased his coumadin by at least half and his protime is still too high. So I went to talk to the resident. I was furious and I guess I'm not very tactful, but I told her what she did was totally wrong, that it wasn't the right approach and that she discharged the man in a potentially dangerous situation.

The nurse practitioner went on to say that communication and coordination was a problem with the patients discharged on anticoagulants and that this was one of the most recent of many such potentially dangerous situations. She and her coworker were in the process of collecting specific data to discuss with the physician in charge of the hospital residents so that these problems could be identified and alleviated. Thus, her anger at this resident was greater than it would have been had the other incidents not occurred. This situation illustrates a medical resident's reluctance to accept corrective feedback from a nurse practitioner. During the interview session the nurse practitioner conceded that she had not been as tactful as she might have been. The nurse practitioner was concerned about the resident's refusal to acknowledge the potential seriousness of the situation. She was worried that the resident might do the same thing again and was considering discussing the situation with the physician in charge.

Situations involving nurse practitioners and physicians not connected with the institutions where the nurse practitioners practiced were even more problematic. In fact, there really were no communication lines established between nurse practitioners and physicians in the private sector. Several nurse practitioners described situations where they called private physicians in the community for consultation and referral. Situations involving attempts by nurse practitioners to provide evaluative feedback to these physicians indicate that skills and communication lines need to be further developed and refined in this area.

The patient in situation #55 was a 66 year old man with psoriasis. He was seeing the nurse practitioner weekly over the past 9 years for ultraviolet light treatments. She describes him as "one of my dearest friends" and relates the following:

> He was seeing a private internist and he was just looking poorly. He was losing weight and I didn't know what was going on. Every six months I get blood studies on patients receiving this experimental treatment and his creatinine was elevated. So I called the private doctor and told him about the elevated creatinine. So the patient came back the next week for another treatment and I learned that the private doctor had started him on prednisone. Well, prednisone is something you never give someone with significant psoriasis because the psoriasis gets out of control when it is discontinued. So I called the private doctor back and found that he did not even do an IVP. He was just treating the high creatinine. And when I asked why he was doing this, he replied that he had talked to a renal specialist who said it could be due to inflammation.
>
> Well, the patient developed diabetes iatrogenically from the prednisone. Then he became anemic and lost a significant amount of weight. So I called the private doctor again and he said that new diabetics often lose weight. So I suggested to the

patient that he should get a second opinion. He had a lot of respect for physicians and people in authority and he was reluctant to go to another physician. Finally, I called the private doctor again and insisted that if he didn't admit the patient for a workup that I would have him worked up here.

So he admitted him to a private hospital overnight for a bone marrow and then proceeded to give him weekly blood transfusions. Ifelt this treatment was really wrong and I couldn't persuade the man to go to someone else. I had a hard time with the private physician, he went on about "didn't a nurse know her place?" and that he could sue me. I'm a specialist myself and my general knowledge of medicine is not that extensive, so I felt intimidated not to be more aggressive.

Finally, after about 8 months, he came in and just looked so awful and he'd just had 4 units of blood the day before and was going to have 4 more units at the end of the week. I thought "this is the craziest thing I've ever heard of." I said "enough is enough" and told the patient that he was coming into this hospital in a weekand that he wasn't leaving until theyfound out what was wrong. (A week would give him time to make arrangements for his wife who had multiple sclerosis to be taken care of).

Well, to make a long story short, he came into the hospital and within 16 hours they determined that he had a renal tumor. And I felt badly because for 8 months I knew something was really wrong and I kept trying to get him to get another opinion, but finally when I got forceful, he came in right away.

This excerpt illustrates the seriousness of physician reluctance to accept evaluative feedback from nurse practitioners. It suggests that further skill development is needed in nursing and medicine to promote quality of care through interprofessional monitoring. Such skill development could be faciliated by providing interdisciplinary clinical learning experiences for nurse practitioners and physicians.

Organizational And Work Role Competencies

The domain Organizational And Work Role Competencies described by Benner was considerably expanded to encompass the skilled practices observed in ambulatory care (see Table 8).

Table 8

DOMAIN: ORGANIZATIONAL AND WORK-ROLE COMPETENCIES

Areas of Skilled Practice:

Coordinating,Ordering, and Meeting Multiple Patient Needs and Reguests; Setting Priorities

Building and Maintaining a Therapeutic Team to Provide Optimum Therapy

Coping with Staff Shortagesand High Turnover:
- -contingency planning
- -anticipating and preventing periods of extreme work overload
- -using and maintaining team spirit; gaining social support from other nurses
- -maintaining a caring attitude towards patients even in absence of close and frequent contact
- -maintaining a flexible stance towards patients, technology, and bureaucracy

**Making the Bureaucracy Respond to Patients' and Families' Needs

*Obtaining Specialist Care for Patients While Remaining The Primary Care Provider

Note. From Benner, 1984a, p. 147.
**competency identified by Fenton, 1984, p. 265.
*competencies identified in this study.

Coordinating, Ordering, and Meeting Multiple Patient Needs and Requests; Setting Priorities

This competency was not highlighted in this study because nurse practitioners see one patient at a time and really can devote their complete attention to the individual

for the entire appointment time. There is a great deal of coordinating that takes place in terms of helping a particular patient to get what he or she needs, but this is discussed in the competency Making the Bureaucracy Respond to Patients' and Families' Needs.

Building and Maintaining a Therapeutic Team to Provide Optimum Therapy

It appears that there is a strong bond between the nurse practitioner and the patient and the nurse practitioner strives to meet the patient's needs by coordinating care with available resources. There is not much evidence of team work in terms of nurse practitioners and other nurses. In fact there was some evidence of conflict and lack of teamwork in that nurse practitioners were dissatisfied with the cooperation that they get from nurses working in the ambulatory care areas. Several nurse practitioners commented that the nurses (RNs and LPNs) see themselves as there to assist the physicians and they are often reluctant to help the nurse practitioners with things such as drawing bloods, explaining things such as stool specimen collection, and straightening up their examination rooms for the next patient. This is an area that indicates role transition and conflict in nursing.

There was also some evidence of conflict between nurse practitioners and physicians. Several nurse practitioners discussed situations where physicians were overly critical of nurse practitioners and vice versa. This again points to

role conflict and the whole question of the territory of the overlapping disciplines of medicine and nursing. There was some evidence of teamwork between nurse practitioners and physicians and recognition of the complementary goals of the two disciplines. In the following excerpt one of the nurse practitioners describes the overlapping areas of nursing and medicine.

> Nurse practitioner: There is a big component of "junior doctor" here, but one thing to remember about that is that this is probably always true of nurses who work in teaching hospitals. There's always a little bit of "junior doctoring" because the people you come into contact with come in such different identities with varying skills. Certainly a good nurse in a lot of places needs to know a lot of medicine to understand the expectations for the patient's therapy--both medical and nursing therapy.

In this next excerpt a nurse practitioner describes how her preparation and practice differ from that of the specialist physicians in the clinic where she works.

> Nurse practitioner: I'm not a physician. As a nurse practitioner I have clinical expertise, but it's not the same type as a physician's who has gone to medical school and specialty training programs. The physicians here are specialists--gastroenterologists. I'm not. I don't know all about PCB and all those hepatic conditions. I don't see that there is a real need for me to get that involved with the complicated rare things which my physician husband calls "zebras" because that isn't the kind of thing that I'm going to see in daily practice.
>
> If I find someone that has a complicated interesting problem--those patients are really a challenge to the physician fellows here and they like to follow them. And they'll say "Let me see this one on followup." And that's fine. I don't mind. They see enough common cases and they are here to learn about these zebras.

This excerpt points to different areas of expertise between the nurse practitioner and the physician which are

associated with different interests. This nurse practitioner finds providing continuity of care and management of common problems and concerns to be challenging, interesting, and satisfying. She emphasizes patient teaching in her practice and enjoys getting to know patients well. The specialty physicians with whom she works find rare cases and diagnostic challenges of most interest to them.

Another nurse practitioner describes what she sees as different orientations of nurses and physicians:

> I think physicians are bored by health maintenance and teaching and they don't really want to spend more time doing that. That's not what they enjoy. They don't feel comfortable because that's not what they've learned and they would rather spend a half hour to 45 minutes with a cardiac problem and discuss that with the patient and not go into health maintenance.
>
> Physicians have never argued that we spend too much time, which is interesting. They've always felt that what we do is fine and if there's a problem that needs more time, they always call on us to spend the time to talk to families.

This excerpt indicates that nurses are well prepared to focus on health maintenance and counseling with patients and families while physician preparation emphasizes pathophysiology and diagnosis and treatment of disease. The nurse practitioner explains that physicians refer patients to her for problems that require more time for talking to families. This indicates that there is a recognition by physicians of the nurse practitioner's counseling and supportive skills and shows a complementary orientation to practice between nurse practitioners and physicians.

Another nurse practitioner comments:

> I see the nurse practitioner as being different from

> the physician in that the major focus is a healthy one where the emphasis is on health maintenance and exploring habits and preventing disease as opposed to treating people who already have major significant diseases.
>
> There is a small portion of my caseload that does have major significant disease. I generally follow those individuals with a physician. That means that I will try to consult with the same physician, or have the patient come in to see the physician periodically, or have the physician review my chart so that I'm on track. So I really keep close tabs on people that have significant disease. But I see the nurse practitioner's role as really focusing more on that healthy aspect and doing counseling as well.

This excerpt points to a complementary and collaborative relationship between this nurse practitioner and the physicians with whom she works. The nurse practitioner sees her practice as focusing more on healthy aspects: health maintenance, illness prevention, and counseling while the physician's practice focuses on management of patients with significant disease. When this nurse practitioner has patients with major diseases she works closely with a physician in providing care for these patients.

Mechanic and Aiken (1982) advocate attention to developing models of cooperation between nurses and physicians that emphasize the mutual interests and goals of the two disciplines. They comment that "models are needed to build from the early interaction in which the young house officer is assisted by the experienced nurse in "learning the ropes" (p. 750). This study provides an example of such a model. One of the nurse practitioners works with medical students and residents when they come to her clinic for

their dermatology experience. They look to her as an experienced clinician and resource person and they develop a relationship of mutual respect, trust, and friendship which facilitates communication and coordination long after they go on to other areas of the hospital.

Other examples of mentoring of new medical residents centered around procedures such as pelvic examinations, guidelines for childhood immunizations, hospital admission procedures, and availablilty of institutional and community resources. Another example of collaboration, mutual respect, and cooperation was provided by a nurse practitioner who practiced part-time in an arthritis clinic. This nurse practitioner participated in clinical conferences with the medical team and there was mutual sharing of information, skills, and ideas between the physicians and the nurse practitioner. For example, the nurse practitioner learned how to perform joint injections and followed a complex patient who had lupus erythematosus with physician guidance and consultation while the nurse practitioner shared knowledge of institutional resources for patient care, such as the pain control clinic. These examples illustrate the potential for improved patient care through increased communication, cooperation, and collaboration between nurses and physicians.

An example of lack of communication and collaboration with a private physician is provided by situation #86. The nurse practitioner explains that she has been seeing an 85

year old man for about 2 years. Initially he was doing well, but over the past 6 months his condition had deteriorated. He had an episode of shortness of breath and was hospitalized near his home. He returned to see the nurse practitioner following his discharge, but he was unable to give her any details about his hospitalization or how his medications had been changed. So the nurse practitioner told the man that she would have to call his private doctor.

> Nurse practitioner: So I called the private doctor and he refused to speak to me. So our attending physician finally spoke to him and whatever he said to her I don't know, but she ended up in tears. Then the private doctor wrote the man a letter saying that he would no longer care for him--that he should get his care here. So that upset the man very much. He felt like he had been abandoned. He likes to come here, but he also wants a doctor near his home. So, the attending physician and I said that we were willing to share his health care, but that there would have to be open communication with the private physician.
>
> So he found another doctor and my impression was that everything was okay, but I think he ended up in the hospital again, he never knew what medications he was taking, and he continued to see the other doctor in between his visits here. His care had become very complex--he has congestive heart failure, renal failure, and various arrhythmias--basically he's dying. He did not want me to call his private doctor because of what happened with the last one. So in view of the fact that he enjoys coming here--I give him an hour appointment because he likes to talk and is very anxious. His wife is going blind and they don't have any children so he feels he has to take care of her. The attending physician, the patient, and I made an agreement that the private doctor would follow him for his medical care and I would only follow him for psychosocial things.
>
> The last time I saw him he wanted me to give him something for his sinuses and I reminded him that we agreed that he would get his medical care from his private doctor and I explained that I couldn't add drugs to a regimen that I didn't know anything about. He became very upset and said no that the agreement was that the private doctor would take care of his heart, lungs, and kidneys. I tried to explain to him that it was a little more complex than that. I told him that we

> couldn't give him the quality medical care that he deserved on this kind of a fragmented basis.

This excerpt illustrates not only the fragmented care that can result from lack of collaboration and communication between private care providers and those in large institutions, but it also shows the misunderstanding that an individual can develop about the complexity of the body. This man's idea that 3 body systems could be cared for by one physician and the rest of his body could be cared for by someone else is like a caricature of the fragmented specialized health care system. As Benner states:

> From the patient's perspective, a technological understanding of the body may render health and wholeness inaccessible, as one is barraged daily by the latest discoveries of the vulnerabilities of one's bodily parts, and the concomitant dangers of a modern industrial age. Indeed the loss of the sense of the body as a unified system of capacities meaningfully related to the world is substituted for an atomistic, elemental notion of the body as machine comprised of many bits and pieces that can be substituted, altered or strengthened (in press-b, p. 7).

The nurse practitioner felt badly because she knew that he did not get the emotional support that he needed from the private physician, yet she could not continue to care for him medically without open communication with the private physician. This situation has alerted the nurse practitioner to the potential for other examples of covert dual care and she now asks patients if they are seeing any other care providers to try to avoid such misunderstanding.

Coping with Staff Shortages and High Turnover

As mentioned high turnover is not a problem with the nurse practitioners in this study. There was some evidence

of anticipating and preventing periods of extreme work overload. In the setting where 10 nurse practitioners work together, they planned for coverage during lunch hour by having one nurse practitioner come in later and take a later lunch break than the others.

Evidence of skill in gaining social support from other nurse practitioners was evident in all of the study sites. The following comments from two nurse practitioners illustrate this supportive atmosphere.

> Nurse practitioner: I think being in a group we're lucky enough or unlucky enough that we're all in an office together and we use each other as sounding boards. We can grow from other people's experiences and really learn from that, so it's not only our own experience that we pick up on.
>
> Nurse practitioner colleague: Yes, we don't all have to make the same mistakes.
>
> Nurse practitioner: It's really a family atmosphere in a way. We form an inner core and we can complain to each other, but we also support each other, and it's always been that way. I don't think we could survive and do what we do without that.

These excerpts illustrate the camaraderie of people joined together by common purposes and goals. Several nurse practitioners mentioned the somewhat precarious position of nurse practitioners in terms of legal issues and acceptance and recognition of the role. They described this as being "on the firing line." They see their group cohesiveness as an essential survival mechanism. Their peer supportive behavior was evident in the interactions observed.

The nurse practitioners' skill in maintaining a flexible stance towards patients, technology, and

bureaucracy was noteworthy in the interviews and participant observations. This skilled practice is discussed further in the following section.

Making the Bureaucracy Respond to Patients' and Families' Needs

It is interesting to observe that this competency was described independently in this study and was labelled "managing the system." On further interpretation of the data, it became apparent that this competency was similar to the skilled knowledge that Fenton (1984) had identified with clinical specialists. Fenton's term for this competency is used here since it was labelled previously. The following excerpt exemplifies the skills involved in making the bureaucracy respond to patients and their families:

> Nurse practitioner: Last week we had a real disaster. I went to a CE course on disasters and disaster was defined as anything that overwhelms your manpower and equipment. It certainly was a disaster. The attending physician was swamped, the upstairs doctor who was admitting patients was difficult to work with, and I had a patient who had to be admitted. I knew all of this was going on and the attending physician was almost in tears and she said to me "He's got to be admitted. I don't think he's going to get admitted here. Why don't you tell him to go to a private hospital and get himself admitted." He should have been in the ER with a monitor on, but ER was full of sicker patients and it was just a nightmare.
>
> And so I thought this patient has to be admitted and I don't know any of that other stuff. I don't know that this ER is full of all these sick people. All I know is that my patient has real bad heart disease that's getting dramatically worse. He can't bend over and tie his shoes without getting angina. He's got to be admitted. So I just called the admitting doctor and told him. I didn't get any census to start with; I pretended that I didn't know that he was drowning in admissions and I just very calmly kept being persistent, ...it's like you learn to keep play-acting.
>
> And so, I went into the ER where the intern and

> the medical students were getting ready to work up a patient for admission and I said "Please evaluate this patient upstairs, please transport him up there and then do his physical because I need this bed. I have a patient that needs to be on a cardiac monitor." And they said "Well, we don't know if we can do that because our resident hasn't said so." So I called the resident and I very calmly said "I need to put a patient on a monitor and I want your intern and medical student to evaluate their patient upstairs." And he said "Well, they certainly can do that so ask them, don't tell them." So I went to the intern and said "I talked to Dr.______ and he said you could evaluate that patient upstairs--it's all right with him." So the intern and the medical student took him upstairs, usually the nurses transport the patients here, but no way was any nurse going to leave that place on that day.
>
> So we put the patient in a wheelchair with his oxygen and his IV and the intern and the medical student took him upstairs and I put my patient in the bed. And as long as he was in there, then I knew he was OK. Then I came to work the next day and confirmed that he had been admitted.

This excerpt illustrates the nurse practitioner's familiarity with how the bureaucracy works. She used this knowledge and her communication skills to choreograph a particularly complicated set of circumstances and succeeded in getting a patient admitted with minimal stress to the patient. The nurse practitioner functioned as an advocate for this patient.

This competency involves negotiating for patients and interpreting for them so that they can fit into the system and get what they need. The nurse acts as a connecting link and interprets between the patient and the system. She remains flexible in her stance toward the system and doesn't become involved in interpersonal conflicts, instead sheuses her knowledge of the bureaucracy and her interpersonal communication skills to provide the care her patient needs.

Situation #3 provides another example of managing the system to meet patient needs.

> Nurse practitioner: Recently, there was a patient who isn't my patient at all, but actually a cousin of one of my patients. The cousin had just arrived from South America, was 36 weeks pregnant, and spoke no English. So at the end of a visit, my patient asked me to tell her what to do about her cousin. I called to make the eligibility appointment because I knew that it was against their policy to take someone that late in pregnancy. The policy is that people who are late should go to the emergency room to deliver. I made a special request in this case because she was foreign to our culture and she didn't speak any English. The thought of someone being pregnant and coming from a different country and to have their first encounter with the system be going to the emergency room to have a baby was unthinkable.

The situation became quite complicated and the nurse practitioner ended up doing a great deal more than just making that one phone call. The woman went for her appointment, but became frightened when she learned that she did not meet the residence requirements for care and she left without being seen. The nurse practitioner's patient called and asked what she could do with her cousin now. They checked into a hospital near where the cousin was staying, but learned that she would have to pay $1500. and she had no money. So the patient called back again asking the nurse practitioner for assistance. The nurse practitioner was concerned since the woman was now 37 and a half weeks pregnant and she relates the following:

> So I spoke to the eligibility worker to find out what the specific prerequisites were that the woman needed without mentioning that she didn't meet the residency requirements. Then I spoke to our prenatal nurse here to see what I should do. She and I decided that the best way, although it is not legal, is to pretend that

she lives in the designated area.

This nurse practitioner had some reservations about going against the rules. She had never done this before even though she knew that many providers did. However, in this case since the woman was so near term, she felt it was justified. So in order to provide some proof of residence the nurse practitioner sent a letter to the pregnant woman. She managed to get another eligibility appointment for her and describes the following:

> Nurse practitioner: Then I got a call from my patient and she said "I don't know what happened, but my cousin didn't go to the eligibility appointment because she didn't get the letter." And I said to myself "Now, this is getting crazy." I was talking with my patient at night--at home because she works during the day and then she'd call me during the day and I was getting the feeling that I couldn't deal with this any longer. I didn't want to jeopardize our relationship with the Obstetrics department. Well, it turned out that the cousin had given me the address, but not the apartment number. So I set up yet another eligibility appointment. I had to call back this person who thought I was just crazy. She said "What is with your patient?" So I said that I was really sorry and that she was so confused. She wasn't you know, but ...
>
> Investigator: You've got to make her interpretable in some way.
>
> Nurse practitioner: Right. So anyway I sent her another letter which she received. I learned that she did go for her eligibility appointment and in the meantime, I saw her in the clinic twice already. I'm not going to deliver the baby, but I will see the child for health care. So I thought I would just like to see her and to help her become familiar with the clinic.

This excerpt illustrates the kind of patience it sometimes takes to make the bureaucracy meet patients' needs. It also depicts the kind of circles one can become involved in while trying to manage the system and teach patients how to use

the system. The nurse practitioner knew how to make the system work and she knew how to find out the rules that she wasn't familiar with so she could interpret them liberally and get her patient's needs met.

Situation #35 provides an exemplar of managing the system to meet a patient's needs. The nurse practitioner relates the situation of a black man in his sixties who had severe COPD and bizarre behavior. She had been seeing him as an outpatient and was having difficulty teaching him how to use his inhaler properly and to know when it was empty. She asked psychiatry to see the man when he presented with auditory halluciations and bizarre speech. They saw him once and weren't really impressed because they didn't feel that he was a danger to himself or others. The nurse practitioner was frustrated because his thought processes were preventing him from cooperating in his care. She felt that the psychiatrists were very casual about this man and the following excerpt continues:

> Investigator: So what happened to change that?
>
> Nurse practitioner: He got admitted to the hospital. His blood gases were terrible and he was in failure. He had an in-house psychiatric evaluation because he tried to knife a nurse. He had always admitted to hearing voices. He was put on anti-psychotic drugs then and is doing much better.
>
> I got involved because he was a disposition problem. He lived in a car and he needed home oxygen, but the pulmonary people wouldn't give him oxygen until he was in a room and board setting--he had to be out of his car. That was something--trying to work through that. It enraged him. He didn't want to lose his freedom to smoke, drink beer, and have his own money. It was an experience trying to work with the pulmonary physician and arranging for the oxygen.

> A nurse practitioner colleague: Yes. She was a real patient advocate. She did all the coordinating with psychiatry and pulmonary. She got him on home oxygen and medicine. He's a lot better than he used to be. I think the real important thing is that you were always here and he could call you and stop by once a week. And that was enough for him to be able to touch base with somebody and get another inhaler, more medicine, or talk about the voices being worse. He always had you to talk to and I think that's what really made the difference--that she coordinated everybody. He would be just lost in this system.
>
> Nurse practitioner: A satisfying thing with this man--I think he's in pretty good control. He is more in control of his thought processes, his breathing is in better control, and he's taking his medicines. He'll come in and actually say "Thank you" to me. It's really nice.
>
> Nurse practitioner colleague: I think it's an example of the availability and accessibility of the nurse practitioner.

This excerpt again points to the patience and persistence that is part of the skill of making the bureaucracy work. It also provides an illustration of the nurse practitioner getting connected with someone who is very challenging and difficult to work with and who could not have made the system work on his own.

Situation #77 provides another example of the nurse practitioner's ability to make the bureaucracy meet patients' needs. The nurse practitioner relates that the patient was a 52 year old black man who presented with hiccups that were going on for 4 days, a productive cough for 3 weeks, a 20 pound weight loss in the last 2 months, fatigue and a 40 pack-year smoking history. A chest x-ray was done and it showed a mass--so sputums were sent. The nurse practitioner called to get the cytology results

and it was indeed carcinoma.

The nurse practitioner then got involved in trying to facilitate the man's admission to the hospital. He could be admitted through any one of several services: medicine, pulmonary, oncology, or even thoracic surgery. The attending physician whom the nurse practitioner consulted with about the admission became involved in conflict with the pulmonary fellow. They disagreed about which service could best treat this patient and then there were problems with a physician going off one of the services soon. The nurse practitioner thought of admitting the man through oncology because she knew that she could get him into that clinic right away. The attending physician agreed and they were able to bypass medicine and bypass pulmonary and get him admitted without delay. In the following excerpt the nurse practitioner expresses dissatisfaction with having to spend so much time bypassing problems and conflicts in the system:

> Unfortunately, that's what we spend a lot of our time doing. It's one of the more frustrating things.
>
> Investigator: In a way though, it's a real service to the patient because you're helping the patient get through the system. Certainly you nurse practitioners know the system and how to get through some of those hoops instead of the patient having to ...
>
> Nurse practitioner colleague: That is one of the services that we provide--definitely.

Skillfully managing the system for patients involves knowing a great deal about the bureaucracy and how it works. In order to be a good system manager the nurse must know about medicine, nutrition, pharmacy, laboratory,

hospital policies and procedures, rules, and regulations, available resources, etc. The nurse must really be aware of what she knows and what she does well, and she must also be aware of the skills of other hospital personnel. In particular, the nurse must have effective, highly developed communication skills to facilitate things without producing undue conflict.

Obtaining Specialist Care for Patients While Remaining the Primary Care Provider

The skill of obtaining specialist care for the patient while still remaining the primary care provider is quite complex and there are differences in the skills needed for different circumstances. If the patient is admitted to the hospital then the nurse practitioner has to relinquish control over the sitation, but if the patient is followed by a specialist or several specialists in the clinic setting, then the nurse practitioner has a central role in monitoring the patient's health status over time. This important skilled practice was discussed as the maxim "followup is everything (see pp. 111-113).

The Helping Role of the Nurse

The competencies described by Benner for the domain of the helping role of the nurse (see Table 9) are directly applicable to understanding the knowledge and skill of nurse practitioners in ambulatory care with the difference that there is a greater emphasis on health maintenance and prevention in ambulatory care.

Table 9

DOMAIN: THE HELPING ROLE OF THE NURSE

Areas of Skilled Practice:

The Healing Relationship: Creating a Climate for and Establishing a Commitment to Healing

Providing Comfort Measures and Preserving Personhood in the Face of Extreme Breakdown

Presencing: Being with a Patient

*Maximizing the Patient's Participation and Control in His/Her Own Health/Illness Care

Interpreting Kinds of Pain and Selecting Appropriate Strategies for Pain Management and Pain Control

Providing Comfort and Communication Through Touch

Providing Emotional and Informational Support to Patients' Families

Guiding a Patient Through Emotional and Developmental Change: Providing New Options,Closing Off Old Ones: Channeling, Teaching, Mediating
- -acting as a psychological and cultural mediator
- -using goals therapeutically
- -working to build and maintain a therapeutic community

Note. Benner, 1984a, p. 50
*indicates an additional competency identified in this study.

The Healing Relationship: Creating a Climate for and Establishing a Commitment to Healing

The following interview excerpt describes one nurse practitioner's ideas about the healing relationship:

> If I could say what I want to be when I grow up--I would say I'd be a healer. I guess there is something magical about being a healer. I think there are two levels: the level of what you know, and then there's the level of a relationship you have with a patient that makes them feel that you will heal them. There's that element of the healer that goes throughout health care and part of it is belief.

This excerpt refers to the commitment to healing and the importance of belief often referred to as the placebo effect. This aspect of the healing relationship is unsettling because it is not completely understood. This nurse practitioner was able to accept the fact that even though she did not completely understand this element of hope and belief she is aware that it does exist and she tries to mobilize it for the patient's benefit. Benner (1984a) identifies three steps involved in the process of establishing a healing relationship:

1) Mobilizing hope for the nurse as well as the patient.
2) Finding an acceptable interpretation or understanding of the illness, pain, fear, anxiety, or other stressful emotion.
3) Assisting the patient to use social, emotional,or spiritual support (p.49).

When asked to describe their relationship with patients, the nurse practitioners referred to an egalitarian, personal approach. When asked to contrast the nurse practitioner role with the traditional provider role, one of the nurse practitioners responded:

> First off, I think the biggest difference is that when I introduce myself I'm on a first name basis instead of already setting up a barrier of what your name is.

Another nurse practitioner illustrates the common preference for egalitarian, collaborative relationships:

> The nurse practitioner puts oneself on the same level as the patient, that is--you may be a carpenter or a lawyer or an engineer--I'm a health care provider. My role is to advise and guide you, not to tell you what to do. Your active participation is necessary. So there is more of a theme of self care as opposed to "aha, I'm going to discover what's wrong and cure you." It's a two way road as opposed to one.

The personal approach favored by nurses in their relationships with patients is described in the following excerpt:

> I think that one thing that might make my relationship with patients different from that with physicians is that for all my new patients that I see, I always ask them questions about where they were born, who they live with, are there any problems with their relationships at home, and try to get some feel for what is going on in their lives. I ask these things for a reason--I'm always trying to figure out how their health is being affected so it's not just social chit chat. So I get to know a lot about people's problems and when I see people back on followup, I get the feeling that they know me a little better because we've talked about something that's more personal than just symptoms, how many cigarettes they smoke, and what pills they take.

It is important to add here that the nurse practitioner is not just collecting information in a formal onesided manner, she follows an egalitarian approach and shares some of her personal experiences with patients especially if they are similar to the patient's experience. Other examples of this egalitarian approach include being on a first name basis, discussing vacation experiences, sharing holiday plans and photographs of significant life events, etc. that were

observed during participant observation visits with the nurse practitioners and their patients. One nurse practitioner commented that she thought it was only fair to share some personal details with her longterm patients who have shared so much of their lives with her.

The personal approach to care is not just more friendly, it has implications in terms of patient comfort and willingness to disclose concerns. One of the nurse practitioners mentioned that she spends at least a half an hour talking with a particular patient about his concerns and anxieties every time that he comes in and she realizes that a physician wouldn't do this. She wonders if there is a difference in outcomes if one goes to a nurse practitioner and talks for a half an hour or if one goes to a physician and doesn't get to talk about all of one's feelings. When asked about this further, the nurse practitioner said that she realizes that in terms of patient satisfaction it probably does make a difference. Also she comments that this is the part of her practice that she enjoys the most--talking with patients and really getting to know them. She actually says that she feels that she's their friend and really enjoys this.

This nurse practitioner mentioned that patients frequently call her and she thinks that part of the reason they call her so frequently is that she is a nurse. She thinks they more readily call her--that they're less intimidated perhaps. When asked if that might also be true

of the visit and not only phone calls, the nurse practitioner conceded that she thought this probably was the case, that patients felt more at ease talking about their concerns to a nurse practitioner than to a physician. This nurse practitioner's beliefs are in accord with Benner's (1984a) observation that "patients look to nurses for different kinds of help than they expect or receive from other helping professionals" (p. 47). It seems that nurse practitioners try to establish egalitarian, personal relationships with patients and patients in turn expect this from nurses.

Another nurse practitioner described her personal approach to care:

> I try to spend a lot of time with patients; treat them very individually; do a lot of patient education; and help them calm down and make them more comfortable when they're here. I make a real effort to let them know who I am and give them my phone number and tell them to call me if they have questions or problems. So I think that even though I really enjoy diagnostic work-ups and the pleasure of doing something to a patient that makes him better and he says "Well, you're great!" that I've tried along with the real medical skills to maintain what I see as nursing skills.

Situation #80 provides an exemplar of the impact of a personal relationship. The nurse practitioner explained that in a way she feels differently about her continuing clinic patients than about the patients she sees for episodic visits in walk-in clinic. She comments that you have an investment in your ongoing clinic patients and you know them. In the following excerpt, the nurse practitioner relates a situation with a man in his early 70's who jogs

and plays golf. She mentioned that she first saw him when she was a student during her preceptorship and when he came back he asked for her. He was complaining of getting short of breath on the 13th hole and so she put him in her clinic. She followed him periodically for about 3 years. She discovered an adenocarcinoma of the colon and a prostate nodule which were both treated successfully. In describing the impact of her relationship with this man, the nurse practitioner states:

> And so about a month ago, I saw him. He came in with a bad flu. After the visit was over, he asked if I had time to meet his wife and I said "Yes." So he introduced me to his wife and said "This is ______, she saved my life. I wouldn't be here without her." He was just so happy about it and even through all the diarrhea and the radiation he never said anything negative. All he would say is "I wouldn't be here if you hadn't found it." And I really did feel like I made a difference for this patient.
>
> Investigator: Well, you certainly made a difference in his opinion!
>
> Nurse practitioner: It somehow made a little bit of a difference to me that he was a patient I had known for several years because I was closer to him before all this started and I already had an investment in his care.
>
> Investigator: It made a difference in your feelings?
>
> Nurse practitioner: I think it may have made a difference for him and for me because I had known him for a couple of years and liked him. We already had a good rapport established. As soon as we got the barium enema results, I referred him to the surgery clinic and called them and they said they would call him to make arrangements for the surgery. But they didn't call him and he came back and told me. So I called the surgeons again and they came down that day and arranged for his hospitalization the very next day. And I think it was easier for him to come to me than to just sit home and wonder why hasn't anybody called me. I think he had a definite feeling that somebody who cared about him was

making sure that things kept going.

This excerpt illustrates that the patient felt cared for and comfortable enough to call and tell her about the delay. The nurse practitioner responded by advocating for this patient.

The following interview excerpt points out the importance of taking time to listen to patients.

> Nurse practitioner: I try to create a really warm atmosphere so people will feel comfortable and trusting and they can talk about what is really on their mind. I try to give them the impression that I have a lot of time, even though I don't, so they will feel comfortable enough to reveal their concerns. When people pose problems to me, instead of just giving answers and dictating the right thing to do, I always ask them what they're doing. I do a lot more teaching.
>
> I think the key is I have more time than physicians. I think that if patients feel that they have a lot of time that they are more relaxed. I ask patients to write down their questions and to come in with them written down so we can make the best use of the time that we have. I know that the list of questions is longer with me for a 45 minute visit than it would be if it were a 15 minute visit.
>
> Also more time gives them more opportunity to think about things and to ask other questions. More time also allows me to take a longer more thorough history. I don't think the physical exam is any longer. I just think the time for talking is longer and the amount of time you have to teach is longer so you can go into more depth.

Thus it appears that having enough time to spend with patients is an essential aspect of providing individualized care with a personal approach. There is no doubt that teaching and counseling take time. A calm, unhurried, comfortable atmosphere is necessary in order to obtain an accurate history and a feel for the patient's situation. The importance of taking time to establish rapport with patients is emphasized in teaching health care providers,

but in actual practice schedules are often so hectic and pressures to be cost effective are so great that history taking is often rushed.

Another aspect of the personal approach to patients is using personal persuasion. In the following excerpt from situation #1 the nurse practitioner describes her interaction with a woman with pneumonia who was very ill and needed to be hospitalized, but was adamant about refusing to be hospitalized.

> After sitting there and thinking about it for a while, I finally went in to the room and told the woman "Listen, I know you want to go home, but if you were my mother, I'd make you stay." And I said "You know you could die from pneumonia. Not only that--there's no one home to take care of you." And I told her that I couldn't force her to stay, but that I absolutely thought she should stay and be admitted. So she said "Well, all right."

This excerpt illustrates a committed involved nurse practitioner who actively uses her influence to convince a woman to be hospitalized because she feels that the woman's condition warrants hospitalization. This is an example of a situation where the ethical principle of beneficence takes precedence over the principle of autonomy. Beneficence signifies actively taking steps to prevent harm (Beauchamp & Childress, 1979). Paternalism involves "overriding a person's wishes, wants, or actions in order to benefit or to prevent harm to that person" (Beauchamp & Childress, 1979, p. 155). In some situations, a care provider is justified in taking action to prevent harm. There is a complex balancing involved in promoting autonomy and at the same time

upholding the principle of beneficence without being overly paternalistic. Care providers are skilled at recognizing significant illness in patients and they sometimes have to exercise their influence to provide appropriate care for patients whose limits of knowledge and understanding may result in autonomous wishes that are harmful to them. The context of the situation provides the key to the appropriate action as it did in this case. The nurse practitioner continues her description of the situation:

> So we got her ready for admission and actually she was getting worse and we started IVs and sent her over to the hospital with oxygen. At that point she was feeling so bad that she didn't much care about not wanting to be hospitalized. Well, the lab reports showed that her blood cultures were positive for bacteremia, her potassium was very low, and she was dehydrated. And not only was she admitted, but the next day she was transfered to the ICU. On the third day she had delirium tremens even though she claimed she hadn't been drinking at all. So I realized afterwards that if she'd gone home she might have died. I thought about that when I got home at night and just sort of started trembling because there was a point when I wasn't going to hospitalize her against her wishes and the only thing that really convinced me was that I knew that she wasn't very healthy.

The nurse practitioner commented that this situation shows the significance of having some kind of continuity with patients. She had a sense of this woman's general condition, her living situation, she knew her well and could see that she was very sick, and she had established a relationship with her over time so that her recommendation for hospitalization was accepted in the long run. This excerpt also illustrates the nurse practitioner's commitment and involvement. She cared about what happened and when she

thought about what could have happened if she hadn't been firm and confident in her assessment of the situation, it made her tremble.

Another example follows where a nurse practitioner recognized that the patient's wishes were incompatible with safe care and she forced the issue with the patient.

> Nurse practitioner: A woman with diabetes refused to have anything to do with insulin. I pointed out that she now had hemorrhages in her eyes and that her blood sugar was out of control. I told her that I just couldn't do it any other way. I just had to recommend insulin. She insisted that she didn't want insulin.
>
> I said "I'm going to write it down here in the chart and I want you to sign it that you don't want insulin." Then she said "Well, let me think about it and ask you some questions. .. What if I want to sleep late on Saturday morning? What if...? What if...?" So I just asked her to wait until she was ready and then she took the insulin and called me a week later and said "I feel so good. Really feel good."

This is another example where the principle of beneficence was recognized as taking precedence over autonomy. In both situations there was a concerned and personal approach to the patient. The quality and tone of persuasion was very personal and not officious or authoritarian. There was a lack of professional distancing and a real commitment to caring for the patient.

Providing Comfort Measures and Preserving Personhood in the Face of Extreme Breakdown

In situation #31 the nurse practitioner describes how she tried to be sure that a dying woman's wishes were being followed in her care.

> Nurse practitioner: She was an older woman who had breast cancer. She was being treated by a physician, but she also needed someone to follow her and check her every 2 weeks because she had diarrhea and

> agranulocytosis from her chemotherapy that required close monitoring. She and her husband had done a little bit of everything. They had good times and bad times. I loved them. They got real attached to me. As she became more and more ill she was hospitalized. But I knew that her real hope was to die at home. She was deteriorating and her husband was devasted because she really was the center of his life. She was getting morphine to keep her comfortable.
>
> One day when the physician and I went to see her in the hospital, he talked to her about dying because she didn't look like she was going to make it. I observed that the physician was talking around more than about actually dying, so I asked her if she understood what the doctor was saying. She replied "I'm dying." I asked if she understands when she's dying and she said "Yes, tomorrow--next day." And I clarified "You're not going home again, do you understand that?" And from her morphine stupor, this woman sat right up in her bed, jerked her hand away from me, and said "Who do you think you are? I am not dying in this hospital" and she went home and died there as she had wanted.

This excerpt shows how the nurse practitioner risked making the patient angry because she was committed to helping her die with dignity according to her wishes. The nurse practitioner continues:

> She was furious with me. She wouldn't talk to me. I was devastated. I went home and cried, but it turned out to be just exactly what she needed because it made her angry enough. She died at home where she wanted to be and where her husband wanted her to be. But it was something. She wouldn't talk to me except to say "I am going home and who are you to tell me when I am going to die." It was very therapeutic for her, but it was horrible for me.
>
> Investigator: What made you do that?
>
> Nurse practitioner: Well, watching the physician telling her about dying, my sense was that she did not understand what was going on and we had communicated so well in the past. She had been so involved in everything and everything had been so clear to her and she had been so much a part of decision making that I neededto besure... I didn't want it slippedby her... I knew she didn't want to die in the hospital. I wanted to make sure (people change their mind you know) so I wanted to make sure that she had actively changed her

> mind, rather than just being drugged up where she couldn't think about it. And also, her husband was having a very difficult time. He wanted her to come home.

This excerpt illustrates a personal relationship between the nurse practitioner and the elderly couple. The nurse practitioner was an advocate for this couple in seeing that their needs were met. It is an example of the common meaning "situated possibility" which was identified by Benner (1984a). The nurse practitioner saw possibility in this situation for the woman to have a more peaceful death at home with her husband where she wanted to be and where he wanted her to be.

The following exemplar illustrates the nurse practitioner's attention to the patient as a person and her ability to involve him in doing something for himself to cope with an extremely trying situation. It exemplifies several competencies including providing comfort measures, presencing, and maximizing the patient's control and participation in his/her own health/illness experience.

> Nurse Practitioner: But I actually said to my patient because ER was full of sick people and there's no dividers; it was like an intensive care unit and some guy's going downhill real fast; a code was imminent--I mean it was a mess. I said to my patient "I want you to do anything you know how to do now for relaxation. Can you mentally take yourself on a trip somewhere?" He said "Well, I do that a lot." I said "Where would you like to be? You can be anywhere. So shut your eyes and take yourself there." And he said "I'd like to go to Vienna." I said "Have you ever been there?" He said "No, it sounds like a nice place to go." And I said "Listen, go there right now."

This excerpt shows the nurse practitioner's recognition of a potentially hazardous situation for this patient who

was suffering from chest pain. The nurse practitioner realized that being in the Emergency room when there was a cardiac arrest pending on another patient at any minute could heighten her patient's anxiety and make his own condition worse. Since she was unable to transfer him to a quieter setting (she had to execute several maneuvers just to secure this bed for him in the ER), she helped him relax by engaging him in visualization and in all probability averted a disaster for this patient.

An outstanding example of caring and concern which demonstrates the skilled practice of preserving personhood in the face of extreme breakdown was provided by participant observation of a nurse practitioner who arranged for transportation by ambulance for a patient who was too drunk to get into a taxi transport vehicle to come for his appointment. He was a 74 year old alcoholic who also had severe COPD. The nurse practitioner was unable to determine his condition by talking with his wife over the telephone and wanted him to come in so she could examine him and be sure that his breathing wasn't any worse and that he wasn't bleeding.

When the patient arrived at the clinic, the nurse practitioner assisted him from his wheelchair to the examination table. She helped him get his robe off and she made sure to put the head of the exam table up for him because he was having trouble breathing. The nurse practitioner showed no evidence of distaste at the obvious

odor of alcohol and soiled clothing and apologized to the patient because her hands were cold. The patient was ashamed about his uncleanliness and kept saying he wished he had taken a shower that day.

The nurse practitioner treated this patient with caring and respect. After completing her examination and reassuring herself that he was not bleeding or having increased respiratory difficulty, she simply told him that she thought he just needed to be "spiffed up" and commented that the last time he had been there he was all cleaned up and shaved. The patient agreed and said that he hadn't shaved in 2 days. It was apparent to the observer that because the nurse practitioner had known this man for a long time, she was able to treat him with respect and maintain his sense of personhood in spite of his present drunken state.

The situations exemplifying this competency demonstrate the nurse practitioners' skill in being aware of how a situation is experienced from the patient's point of view. This skilled practice requires highly developed assessment skills and a commitment to caring for patients in such a way that their dignity as human beings is maintained.

Maximizing the Patient's Participation And Control in His/Her Own Health/Illness Care

Study of the data relevant to the concept of the participatory or collaborative relationship between the patient and the nurse suggests that it is comprised of the following elements: 1) open acknowledgement of clinical uncertainty; 2) a personal (egalitarian) approach to the patient; 3) individualized self care teaching; and 4) willingness to share responsibility for planning interventions. Open honest communication about the uncertainty of clinical situations serves to highlight the importance of the patient assuming responsibility for his health care. The following excerpt illustrates the open acknowledgement of clinical uncertainty as the nurse practitioner states:

> My basic philosophy is that I tell patients that doctors have been on a pedestal and for too many years people in general have expected them to know everything about anything that might be wrong. And I come out and tell patients that if they went to five different doctors or nurse practitioners they might get that many different answers because often there is no real right or wrong answer--there are a lot of shades of gray in health. So I tell them that, first of all so that they don't look at me or health care providers in general as being the be-all and know-all and second, to try to promote their taking responsibility for their own health. People should know what is going on with their health and if they are taking medicines they should know what they are.

It is important for the patient to know about his health so that he can provide an accurate history. The patient needs to be honest and acknowledge health care practices and any changes made in the treatment plan so that the provider can adjust plans and goals accordingly. In the

following interview excerpt the nurse practitioner describes how she tries to educate patients in self care:

> I try to educate people to take responsibility for their own health and to be aware of common illnesses that everybody gets that you don't need to seek help for. I try to promote the idea that you don't need to go to a health care provider the first minute you have something like a cold or back pain--you try home remedies like aspirin or tylenol or heat or just common sense getting away from whatever strenuous thing you'd been doing that might have caused the back pain. I share the knowledge that we all get a variety of minor self-limiting illnesses and explain that this is normal. I think this is important because I think that too much dependence has been fostered by taking medications and expecting never to be sick. People need to learn ways to live with certain problems and make adjustments for discomforts. So I really stress those things with patients and spend a lot of time talking to them about stopping smoking, diet changes, and exercise.

This excerpt illustrates an orientation toward self care and health promotion. This nurse practitioner tries to help people cope with common problems using minimal intervention and emphasizing prevention.

In the next interview excerpt the nurse practitioner refers to participatory care:

> I try and say to my patients, we're partners in your health care and I need you to help me with that. If you feel that you're having side effects from your medication, I would rather have you call me and talk about it with me before you make a change in your medication. I had a patient a couple of weeks ago who came in and hadn't taken any of his medications for the last few days.
>
> I told him that I wasn't going to evaluate him that day because I said "I'm here to find out how you are and how the plan of care that I thought we had decided on is working and I can't really tell that if you're not following it. If it needs to be changed, we can change it, but if you're not even following it, there's no way I can even evaluate it. I really can't evaluate you today."
>
> He didn't get angry--I think he was just

> flabbergasted. I didn't say "I'm not going to see you for 3 months" instead I brought him back within a week or two to Walk-in clinic and saw him there. He was on his medication and we evaluated it and made some changes.

This excerpt shows the importance of open honest communication about the treatment plan being followed. Mutual trust and clarity between the patient and the nurse practitioner are particularly important in ambulatory care where the patient carries out the treatment plan.

Another nurse practitioner described strategies she uses to motivate patients to participate in their health care which included: 1) giving them time to think over suggestions and decide for themselves what they want to do; 2) setting up a formal contract; 3) accentuating the positive, such as past accomplishments and improvements; 4)helping them understand the possible consequences of their medical problems; and 5) promoting self help interventions, such as weight loss in preference to drugs.

In the following interview excerpt the nurse practitioner describes the degree of active patient participation as an individual thing which depends on the provider, the patient, and the situation. She comments that:

> Nurse practitioners are more likely, if not seriously focused on making a patient a more active participant, to at least accept that more easily if a patient comes in feeling like they want to be an active partner in their health care. I think nurse practitioner training makes the nurse practitioner more inclined to want the patient to actively participate. I think that what the concept of health maintenance really is, is encouraging active patient participation in their health care because you are not doing anything to them--you're giving them information and they are acting on it or they are not acting on it.

The fact that not all patients want to be active participants in their care is discussed in the following interview excerpt:

> Nurse practitioner: Patients are not socialized to be active participants in what goes on in health care. They are socialized to come in and have things done to them. It's very difficult to promote active participation when the patient really just wants to be taken care of.

Recognition that participatory care is not for everyone is important. Imposing participatory care on someone who does not understand or want it is no better than being dictatorial. As one nurse practitioner comments:

> There are a lot of people who expect me to tell them what to do and they follow through--that's all. They don't want alternatives generated. They want pills. Just getting people to write down their medications and carrying the list with them is sometimes a major feat. So, on one hand I don't like the authoritarian role, but I find that I'm often forced into it.

Thus, it seems clear that participatory care has to be collaborative between provider and patient. Both have to agree on the plan for treatment.

Interpreting Kinds of Pain and Selecting Appropriate Strategies for Pain Management and Pain Control

Pain control was not a major problem in the clinical situations described or observed in this study. However, one of the nurse practitioners who practiced part-time in an arthritis clinic describes situation #39 which provides an exemplar of this competency.

> Nurse practitioner: I had a patient who was about 70 years old. he was a very nice man who was quite active. He had been complaining of a sort of cramping pain in his hands and had been to many places and had many diagnostic workups that were noncontributory to a

diagnosis. He had tried all kinds of medicines from antipsychotics and tranquilizers to vasodilators and nothing really helped. After seeing him, I presented him during the rehabilitation conference that we have in arthritis clinic and the rehab physician didn't have any other suggestions about what to do. So I said that I wanted to send the patient to the pain clinic. The patient went to the pain clinic where he learned biofeedback and was able to relieve his pain.

Investigator: What made you think of sending him there though?

Nurse practitioner: I had recently been reading some articles about pain control and I knew that the patient had had numerous negative workups. He was quite intelligent and real motivated to do something. So I thought that he seemed like a good candidate to try some alternative pain control methods. The psychologist that he worked with in the pain clinic was real nice too and everything just sort of fell into place. So now he does his biofeedback relaxation a couple of times a day or when his symptoms start to come and that takes care of it. He doesn't even come to arthritis clinic anymore and whenever I see him he says "I'm doing fine--thanks to you."

This excerpt illustrates the nurse practitioner's ability to qualitatively assess this man's situation. The nurse practitioner recognized that the man was motivated to try and achieve control over his pain and considering the numerous negative workups, thought that he would be a good candidate for the pain clinic. This example illustrates that knowledge of available current resources can be as important as diagnostic acumen. The attention to low technology interventions and self help is typical of the practice of these nurse practitioners. A noteworthy off shoot of this successful referral was that other providers in the arthritis clinic checked with the nurse practitioner about how to refer patients to the pain control clinic and they have begun to refer some of their patients to the pain

clinic.

Providing Comfort and Communication Through Touch

There was not much opportunity for intimate physical contact during the visits since most patients were readily able to take off their clothes by themselves so that they could be examined. In the few instances where the nurse practitioner had to assist patients with removing or replacing their clothing they did so in a gentle caring manner. Evidence of the nurse practitioner participants' skill in providing comfort and communication through touch came from the participant observations. The nurse practitioners were observed putting their arms across the shoulders of patients or walking arm in arm with them as they went out to the appointment desk together.

Providing Emotional and Informational Support to Patients' Families

The nurse practitioner participants' involvement in providing emotional and informational support to patients' families was evidenced in numerous situations. A particularly illustrative example is situation #13 in which the nurse practitioner diagnoses coarctation of the aorta in a 22 year old Arabic man. She relates the following:

> The fun part was discovering the coarct and knowing that it was correctable. The challenging part was really not that even though it was in part, since I did a very thorough hypertensive workup. The challenging part was dealing with the family in terms of now he has to have heart surgery. He was the only son. They didn't speak English very well, they didn't have much money, and it was a real big deal to get him to cardiology. Then he had some problems with the staff in thoracic surgery because even though his financial

situation wasn't the best, he wanted to be a private patient and the family did not want a student to perform the surgery.

That was a big issue, and it actually took 6 months to get the surgery scheduled. A lot of coordination was involved. Lots of phone calls and many attempts to reassure and explain what a coarct is and how it is corrected, how it should affect his blood pressure, the time frames of things, etc. I did a lot of interpretation of what the specialists had told them. I spoke to his mother on the phone and both parents came in on several occasions for family conferences. I would confer with the family and sometimes I would bring in one of the physicians here or one of the cardiac people in so that we would be sure that we were giving consistent information.

It's interesting because even though I didn't take many family type courses in school, I have really become very involved in family work. It's really impossible in primary care to work with the individual only--you have to work with their environment as well.

This excerpt clearly indicates not only the nurse practitioner's concern with the impact of this diagnosis on the young man and his family, but also her interest in providing information and support. In fact, she describes helping the family cope with the surgery as more challenging than making the diagnosis. This is another example of the complementary nature of nurse practitioner practice with respect to care provided by medical specialists.

Guiding a Patient Through Emotional and Developmental Change: Providing New Options, Closing Off Old Ones: Channeling, Teaching, Mediating

The skilled practice of guiding patients through developmental change is exemplified in the following excerpt of situation #120 in which the nurse practitioner describes how an earlier paradigm case affected her approach to handling an elderly man's acceptance of the necessity of not driving a car anymore. She had learned from her past

experience that this can be a devastating change for an elderly man.

> Nurse practitioner: He continued to drive and he really didn't see well enough, his reactions were too slow, all sorts of reasons--he shouldn't have been driving. But, it's a difficult thing to talk to clients about. I experienced very early on in my practice another man who couldn't walk, talk, think and he wouldn't quit driving. So we had to make this plan with his family to take the keys and move the car someplace else and it precipitated one of the worst depressions that I've ever seen. This man had hit every parked car in his neighborhood and we had to take the car away, but it really precipitated depression. He had to be hospitalized.
>
> And so with this patient I was trying to figure out a way and finally his wife and I figured out a way. She just wouldn't get in the car with him. She came up with the idea. They would come up here and she would come on the bus and he would come in the car and finally within about 2 weeks she wouldn't go anywhere with him. He had done the same things as the other man. He had turned a corner and glazed a park car...anyway it was an interesting learning experience because I've had that happen a lot. Sometimes it is handled successfully and sometimes it isn't.

The nurse practitioner learned from her previous experience that taking over the situation and taking all control away from a man faced with deterioration in his ability to drive could be devastating. In the next situation, the nurse practitioner involved both the patient and his wife and offered support while encouraging them to come to their own decisions. She was not punitive, manipulative, nor controlling and was able to promote this couple's effective coping with this significant change in the husband's life. In this second case the man's wife continued to support him and go to his clinic visits, but she met him there instead of going with him in the car. He was gradually able to accept the fact that his driving was

putting his wife's and his life in jeopardy and decided to stop driving and rely on public transportation. This exemplar illustrates an egalitarian, shared problem solving approach.

In the following excerpt from situation #33, the nurse practitioner describes her attention to assisting the patient to cope with his inactivity now that he had retired.

> Nurse practitioner: I think I've known him for almost 3 years now. Basically I saw him for hypertension and chronic low back pain that was due to degeneration of the spine. The thing that was pertinent when I first saw him was preparing for retirement.
>
> He was a man who didn't have any hobbies or any outside interests, other than his job. He would usually spend weekends watching TV and drinking beer and taking his wife out on the town. So we developed a plan. We took a 6 month period of time and just tried to come up with activities for him to do in an effort to provide some sort of structure to his life after he no longer went to work everyday.
>
> The only thing he would even do sporadically was go for a walk in the park, so I was trying to get a routine of daily exercise started. I got him interested in a Y program for senior citizens where they did aerobic exercises. I can't remember the other kinds of activities, but the goal was to try to provide more purpose and meaning in his life now that he was retired.

This excerpt depicts the nurse practitioner's concern with the patient's everyday life situation. She recognized the potential for depression developing in this situation where the man was suddenly without structure in his life now that he had retired. She and the man worked out a plan together to help him cope with this significant change in his life. Unfortunately, he is the man described previously in situation #33 (see pp. 108-110) who was found to have terminal pancreatic cancer. A particularly noteworthy point

was that through monitoring this man's ability to carry out the exercise plan that they had developed, the nurse practitioner learned that he was becoming increasingly weaker. She realized that his problem was more complex than diabetes and initiated the necessary diagnostic workup.

In situation #10 the nurse practitioner illustrates the skilled practice of providing new options, closing off old ones: channeling, teaching, and mediating. She describes how her own pregnancy enhanced her sensitivity in counseling a young pregnant woman regarding her options for abortion, adoption, or keeping the baby. The following excerpt shows how comprehensively the nurse practitioner assessed the woman's situation with real attention to the difficult choice she was confronted with.

> Nurse practitioner: One of the most recent things that I can remember is a patient that I saw last week in the screening clinic. I was doing some fill-in time because they were short staffed. I saw a young woman who came in to be basically sized for pregnancy. She went to the psychiatric facility for help in getting through the crisis of abortion and they sent her to the screening clinic to determine how pregnant she was. So she came over to the screening clinic and because I'm pregnant and have the most experience with obstetricians lately I got to see her.
>
> What was most important to me was the fact that even though I was definitely not an expert who could tell her clear cut how pregnant she was, I still think that her coming to the screening clinic was very helpful because there were a lot of things that we discussed while she was there that I think she really needed. She had a lot of problems with what to do with this pregnancy. She had told her boyfriend that she was pregnant and his response was "whatever you want to do--if you want to have an abortion that's OK with me--if you want to get married that's OK with me." Meanwhile, he's the one that had initiated breaking up and she really didn't know what to do. She had a sister who is a nurse who was supportive of her getting an

> abortion and thought that was the right thing to do. She herself was raised Catholic and had some mixed feelings about having an abortion for religious reasons.
>
> On the other hand, in her early part of the pregnancy before she knew she was pregnant she was having some GI problems and had taken some of her mother's Librax to try to treat that and she had also done small quantities of street drugs. She snorted some cocaine, smoked some marajuana, took a few Qualudes--so she didn't know whether she had done any harm to the baby. She didn't know whether she could keep the baby if she had it. There were a lot of things and the woman was really upset and my heart went out to her.

This exemplar highlights how significant personal knowledge can be for enhancing understanding of the situation as it is perceived by the patient. The detailed description of the situation shows the nurse practitioner's careful attention to the specifics of the woman's life circumstances.

In the next excerpt, the nurse practitioner describes how she actively listened to the young woman's predicament, explored possible options with her, obtained information about available resources for her, and encouraged and supported her to actively make her own decision.

> Nurse practitioner: She was very confused, but I think we talked about a lot of options. I think I threw some options up to her that she hadn't thought about. I was able through speaking to the nurse practitioner in the OB clinic to give her the number of a teratogen registry that she could call up and tell them what medication she had taken in that first trimester and to see whether it would in fact cause any damage to the baby since that was one of her concerns.
>
> We talked about what would happen if she kept the baby--what her options were: to keep the baby as a single mother; to keep the baby and marry this fellow; to have the baby put up for adoption; or get an abortion; and how difficult it would be for her to be a newlywed, in addition to that, to be a newlywed pregnant in a situation where he already sought to end the relationship and that that would be a stress for

> her. It would be anybody's guess whether that would work out--it might and it might not, but she would have to think that getting married would not necessarily make the relationship work. We talked about her as a single parent and what she would have to do in terms of being able to support the child and how difficult that would be to maintain financial status and support her baby; her feelings of adoption and her feelings of having an abortion; whether she thought she had done enough drugs to harm the baby; and if she kept the baby, she was going to have to tell her parents because this was something that she had yet not disclosed to them.

This excerpt further illustrates the nurse practitioner's careful attention to the specific details of the situation. She helped the woman to explore the ramifications of the options available to her.

In the next excerpt the nurse practitioner describes how helping the woman sort out her feelings and thoughts decreased the woman's anxiety to a more manageable level. The attention to the lived experience of this crisis is apparent in the nurse practitioner's account of the situation.

> Investigator: You said she was really very upset. Did you see any kind of cues or did you pick up anything that gave you the impression that this sorting out of her feelings was of assistance to her?
>
> Nurse practitioner: Well, I think she was calmer when she left and she said "That's what I need to do. I need to sit down and think about this." And I explained to her that she is the one who is ultimately responsible--that she has to make this decision for herself regardless of what the sister thinks or anyone else. I think she felt a little--to me she looked like her mind was really clicking whereas when she came in she just looked really frazzled.
>
> Investigator: I wonder being only 22 how many times she's ever had to really make an important decision like that.
>
> Nurse practitioner: Oh, we talked about that too--that

> she was young and it was a very difficult decision for her to make. And that she had to step outside of it and look at it in a very objective way too because it wasn't something that she could just trust to her whim. She couldn't just get involved in anxiety and allow the pregnancy to go beyond a point when abortion wouldn't be available to her. She had the opportunity and the resources to do something about it. So she had to think about it--NOW. And she had a place in deciding what was going to happen and she had to be active in that process.

This excerpt shows how the nurse practitioner personalizes the situation to the particular individual. She recognizes that the young woman has had little experience in making significant decisions in her life. The nurse practitioner does not try to "take over" and solve the problem for the young woman nor does she thrust the problem back to her to deal with alone, instead she spends time with her exploring possibilities and supporting her ability to make the best decision for herself. The nurse practitioner's ability to counsel the young woman is enhanced by her knowledge of medicine and nursing, as well as her personal experience with pregnancy and the significant changes that having a baby can make in someone's life.

The Teaching-Coaching Function of the Nurse

The competencies described by Benner for the teaching-coaching function of the nurse (see Table 10) were helpful for interpreting the interview data. Benner (1984a)

Table 10

DOMAIN: THE TEACHING-COACHING FUNCTION OF THE NURSE

Areas of Skilled Practice

Timing: Capturing a Patient's Readiness to Learn
*Motivating a patient to change

Assisting Patients to Integrate the Implications of Their Illness and Recovery into Their Lifestyle
*Assisting Patients to Alter Their Lifestyle to Meet Changing Health Care Needs and Capacities: Teaching for Self Care

Eliciting an Understanding of the Patient's Interpretation of His/Her Illness
*Negotiating agreement about how to proceed when priorities of Patient and Provider Conflict

Providing an Interpretation of the Patient's Condition and Giving a Rationale for Procedures

*The Coaching Function: Making Culturally Avoided and Uncharted Health and Illness Experiences Approachable and Understandable

Note. from Benner, 1984a, p. 79
*indicates expanded competencies from this study

describes the coaching function of nursing as making culturally avoided aspects of an illness and uncharted experiences approachable and understandable. Benner(1985a) delineates the main tasks of the coach as: 1) interpreting the unfamiliar diagnostic and treatment demands; 2) coaching the client through alienated stances; 3) identifying changing relevance; and 4) ensuring that cure is enhanced by care. Observation of expert coaching by the nurse

practitioner participants in this study suggests that the overall objective of this nursing function is to elicit active patient participation in care. Benner points out that coaching must be ongoing and that timing is essential.

The following excerpt highlights the importance of timing to the teaching-coaching function. The ability to sense that timing is right for change is a particularly significant skill for successfully motivating patient's to change. In the following description of situation#91the nurse practitioner recognizes the patient's potential readiness for change and risks making him angry by suggesting in a positive way that continued smoking is so contrary to his outlook on life and his future goals.

> Nurse practitioner: A man, aged 70, came in for a Peace Corps physical and that in itself was just a wonderful sign--age 70--coming in for a Peace Corps physical. He had always had a real interesting life. I think his specialty was agriculture and he was going to somewhere in Africa. He was really looking forward to it. He was really in very good physical shape--wasn't on one medicine, no chronic heart disease, or hypertension or anything else. However, he was a heavy smoker--a couple of packs a day at least for a long time. I asked a few questions about breathing and that kind of thing and he said "I always turn off when people tell me to stop smoking. I just really get turned off and really get angry at people."
>
> So he just let me know right up front that he really didn't want to talk about that at all. And so, I was thinking about that while I was doing his physical. We'd gone through his history and everything sounded really good and then we started to talk about the Peace Corps. He was so full of life, I mean he had so much he wanted to accomplish.
>
> So I thought about that and when I finished his physical, I said "You just strike me as a guy who just loves to live and you have so much you want to do and smoking is totally contradictory to that. You need to think about the quality of your next 20 or 30 years. It's obvious that you've got a lot you want to

> accomplish" and that was basically all I said. He laid there for a minute, and I didn't know what kind of a blast I was going to get from him. He said "Well, you know I never thought about it that way."
>
> And that was pretty much it. I finished the physical and we just thoroughly enjoyed each other and had a nice chat. I saw him back about a year and a half later and he'd gone to Africa and come back. And he told me he had stopped smoking. That was one of those days when you think "Oh, my gosh, something I did or said had a real impact on somebody." That was real nice to get that feedback.

This excerpt illustrates the importance of contextual and relational aspects in addition to timing and understanding the person. The nurse practitioner conveyed her positive regard for the patient and picked up on his perspective. She commented that "since then I've tried that with other people and it hasn't worked at all". This illustrates well that helping relationships cannot be reduced to formulas or understood in terms of the information given alone.

Assisting Patients to Alter Their Lifestyle to Meet Changing Health Care Needs and Capacities: Teaching for Self Care

Participant observation of several of the nurse practitioners indicated that they function as role models for encouraging the incorporation of exercise into one's lifestyle. In the following excerpt from participant observation of a patient visit this role modeling is illustrated:

> While doing the musculoskeletal portion of the examination, the nurse practitioner noted that the patient's legs were stiff and the patient said "I've been meaning to get back to swimming, but since I sold the house I don't have a pool any more. I used to do laps in the pool." The nurse practitioner commented that swimming would be the best exercise for him explaining that it is particularly beneficial for

> arthritis, which he had. She mentioned that she swims and really misses it when the school pool she uses is closed and she can't swim. They discussed other available places to swim besides at home.

This excerpt illustrates how the nurse practitioner skillfully incorporates teaching for self care into the physical exam.

Participant observation of another nurse practitioner provides an additional example of attention to teaching for self care. The nurse practitioner devoted a considerable portion of the visit to coaching the patient in monitoring his diabetes. He is indeed actively involved in self monitoring as illustrated in the following excerpt where the patient initiates discussion of his urine test results.

> The patient took a slip of paper out of his pocket and handed it to the nurse practitioner. It was the record he was keeping of his urine tests for sugar. The nurse practitioner studied the paper and asked for further information about how he checks his urine. She asked if he was discarding the first voided specimen, drinking water, and then checking the next specimen. He was unsure about what this meant and asked if he was checking it too early. The nurse practitioner then went over the procedure for testing the second voided urine in detail.

This excerpt shows careful assessment of the patient's understanding of how to carry out the urine testing procedure correctly. The nurse practitioner reviews the procedure in detail step by step so the patient can follow it.

The nurse practitioner facilitated this man's active involvement in his diabetes care by making sure that he has the equipment that he needs, as follows:

Toward the end of the visit, the nurse practitioner

> left the room for a minute to get some urine recording sheets for the client. She returned and went over the recording sheet specifically with him. She asked about the times of day he had been testing his urine and said she would like him to do it twice. She remarked that he would need more than one recording sheet.

These excerpts illustrate the nurse practitioner's careful attention to specific details that are so important for patients to understand, but seem so mundane and simple to the care provider. This shows how the nurse practitioner is trying to promote understanding rather than simply giving information so that the patient will be able to managethe minute details of his care at home.

<u>Eliciting an Understanding of the Patient's Interpretation of His/Her Illness and Negotiating Agreement on How to Proceed When Priorities of Patient and Provider Conflict</u>

An exemplar of this competency is described in situation #90. This situation is about a 70 year old man who came to see the nurse practitioner sporadically to have his blood pressure checked. He would take some of his sister's or neighbor's medication when he felt his blood pressure was up. He had been told that he had diabetes years before and uses his sister's equipment to check his urine occasionally and takes some of her insulin if there's sugar in his urine. It is apparent from this detailed history that the patient did not hesitate to tell the nurse practitioner about his health habits.

This man came to see the nurse practitioner complaining of blood in the urine of 6 months duration and back pain. There was disagreement between the nurse practitioner and the patient on the priorities in this situation. The nurse

practitioner was concerned about the gross hematuria while the man was more concerned about his back pain of 40 years duration. The nurse practitioner tried to explain that the back pain could be related to the hematuria. She was able to arrange for speedy evaluation of this man by the urologists.

The urologists decided to admit the patient to the hospital to do a cystoscopy and it turned out that they were unable to do the cystoscopy under local anesthesia because of a severe stricture. The patient refused a spinal anesthestic because he attributed the start of his back pain to a spinal that he had 40 years ago. So it was agreed that the man would go home for a week to think about whether or not he would agree to have the spinal anesthesia.

After his discharge from the hospital the patient went to see the nurse practitioner in the clinic to ask for medication to relieve his back pain because the physicians who discharged him didn't give him anything for pain relief. The nurse practitioner gave him a muscle relaxant and an analgesic and the patient did not return to the urologists for followup. The nurse practitioner relates:

> He called me a couple of times wanting to know what we could do about his back problem. So then I finally ended up getting him back in by promising that I would only evaluate him for his back pain and we wouldn't talk about any of the other things that day. So I did that and took x-rays of his back. I showed him the x-rays and said that they looked okay, and except for a little arthritis and some muscle spasm there was nothing else wrong in his back. Then I scheduled him to come and see me and the urologists on the same day, but he did not show up. So that's very frustrating for me.

This excerpt illustrates the kind of patience that is

called for in trying to reach agreement on how to proceed when priorities and values differ. The nurse practitioner tried to meet this man's needs and established rapport with him, but her strategy of having him come to see her on the same day as the urologists did not work. She was frustrated by this situation, but she understands the patient's perspective which she describes as follows:

> He finally mentioned to me last time that he had friends who had surgery on their prostate and they lost their manhood and even though he was 70, he still had some friends and he didn't want to lose his manhood. I tried to explain to him that that is a rare side effect and that many men have prostate surgery and other bladder surgery and their sexual function is fine afterwards, but he was still not convinced about that.
>
> Investigator: He didn't want to chance it, he might be one of the rare ones...
>
> Nurse practitioner: Right. There's no guarantee. But that's a real frustrating case because his values are so different and even though I'm sure the urologist told him the same thing I did--that he may have cancer and that's why we feel that the evaluation is so important--he feels he's lived 70 years and for him right now his manhood and his back pain are more important. And if he loses his sexual function and still has back pain then he doesn't want to live anyway, so why worry about going through the torture of getting evaluated for whatever's causing the bleeding.

This excerpt shows that the nurse practitioner recognizes this man's point of view even though she does not share his values. She acknowledges that for him there are worse things than cancer and death. The nurse practitioner explains that she found it challenging to try to convince this man that he needed to be evaluated for his bleeding. She continues:

> I think that one thing that I try consciously to be

> aware of is where the patient is, why they come in, what are their most important values, and what is it that they want from me. And I try to figure out how I can best be able to give them what they want. And I realize that there are limits to how much you can do. With this patient I feel that whatever happens at this point, there's no way I'm going to blame myself for not having tried and done enough because I have. I tried to help from many different angles and it hasn't worked.

This excerpt shows how the nurse practitioner has learned to invest a great deal of energy into helping her patients. By really doing her best and trying a variety of approaches, she is able to accept unsuccessful efforts without feeling that she is to blame. This particular situation is not over yet. The nurse practitioner may still hear from this man since, as she pointed out, his back pain is more than likely exacerbated by the urinary problem.

Providing an Interpretation of the Patient's Condition and Giving a Rationale for Procedures

Situation #111 provides an exemplar of this competency. The nurse practitioner relates:

> I saw a 52 year old man in my clinic who was having trouble breathing, chest discomfort, and an arrythmia, but nothing added up to a disease that you could put your finger on. I'm convinced the longer I work here that "real disease declares itself." That's one thing that working with sick people that you know. But, yet he was really in trouble and I just had the sense that he was in so much distress. I don't have any physiological measurement, monitors, documentation, or literature to demonstrate what I saw happening, but I just knew as well as I know my name that this man was going to have some kind of cardiac event if there wasn't some kind of intervention. So I had to figure out what was going on in his life.
>
> He was very upset about one of his daughters who was a bad drug addict. He was undecided about whether he should stay married to his wife of 35 years or go off with his mistress who made him feel so much better. He was also selling his business and taking another direction in his life. His wife was starting a re-entry program for women at a community college--she'd never

> worked. Lots of things were happening and he was having a lot of anxiety about what was happening. And he was just in a terrible crisis.
>
> I think it was about the fourth time that I saw him that I told him that I thought his physical problems might have something to do with what was happening between him and his wife and I arranged an appointment for them--that was a Wednesday and by Friday noon I had them in the family therapy unit. He really started to get better and then he had an acute crisis where he waved a gun around at home. The police arrived and took the gun away and he stayed in therapy. He and his wife learned to cope with their daughter's behavior more successfully and they decided to stay married. The other woman moved away.
>
> I continued to see him and I'd say that was about 6 years ago now and he's had no more chest pain, palpitations, or high blood pressure. He doesn't come to see me anymore for visits, but I just saw him the other day with his wife on his way to dermatology clinic. They stopped by to say "Hi." I really think I saved this man's life. I have no way to document it, but I'm convinced that it's true.

This is a powerful exemplar of attending to the whole person and not just to physical symptoms. The nurse practitioner determined that the patient's symptoms and test results did not point to a definitive diagnosis, but she sensed that he was very distressed. After seeing the patient several times and evaluating the results of the history, physical examination, cardiogram, and blood tests, the nurse practitioner became convinced that the anxiety-producing upheaval in this man's personal life was responsible for his symptoms. She had developed a supportive relationship with this man over time and discussed her assessment with him. She explained that having so many upsetting things going on at one time would be too much for anyone to cope with. She validated that indeed there was a problem and arranged for the man and his wife to go to the family therapy unit and

she continued to monitor his condition over time until his symptoms subsided and he felt he no longer needed to see her.

The Coaching Function: Making Culturally Avoided and Uncharted Health and Illness Experiences Approachable and Understandable

Examples of the coaching function were observed during participant observation of patient visits. For example during a visit with a 62 year old diabetic man who was having problems with his feet due to peripheral neuropathy, the nurse practitioner mentioned the possibility of having to take insulin instead of oral agents. The nurse practitioner explained to the investigator after the visit that even though insulin was not necessary yet, she likes to plant the seed of possiblity so that the patient is not totally surprised and shocked if insulin becomes necessary. Sheexplains that she feels that patients need some sense of control over themselves and they need some time and some say about what gets done, so she tries to give them time to think about things and discuss them with her before they are necessary. This demonstrates her skill in making the undesirable prospect of having to give oneself insulin injections more approachable and understandable.

Another example of the coaching function is provided by situation #131 in which the nurse practitioner was seeing a patient who had an ileal conduit that he was being followed in another clinic for and she was monitoring his liver functions and general condition while he was taking

Isoniazid for questionable tuberculosis. She relates:

> It had been a long while since he'd had a history and physical so I scheduled him for a complete history and physical and I got to know him.I thought he looked for all the world like he was depressed. When I asked about it, he said he had been depressed for years. I asked if he had ever been for any psychiatric therapy and he said yes, but that it didn't do anything for him.
>
> I talked with him about the biochemical aspect of depression and asked if he would be willing to talk with a psychiatrist about getting on medication. I said if you can kind of think of it like a diabetic's need for insulin to maintain one of the deficits in their bodies--some people have these little chemicals in their brain that don't work quite right and taking the medication will help correct that. He thought about it and agreed to go and see about getting medication. Well, the next time I saw him I could not believe the difference in him. He was like a totally new person.

This excerpt illustrates how the nurse practitioner coaches the patient in understanding that depression can sometimes be due to malfunctioning of physiological mechanisms in the nervous system. She compares it to a diabetic having to take insulin so that he can accept it as something common and approachable. In coaching this patient the nurse practitioner demonstrates her positive set towards emotional problems. This positive attitude is conveyed to the patient and he senses her commitment to help him. He trusts her judgment and agrees to try a new approach to treatment.

Both the nurse practitioner and the patient were rewarded with the patient's significant improvement. The nurse practitioner sensed that the patient was ready for change and she was able to mobilize his hope and motivate him to take action. The next excerpt illustrates how this positive response to treatment and the significant

improvement in the man's life had a ripple effect in terms of his health and over all well being. The nurse practitioner continues:

> So I thought "that worked, now let's try something else." I told him about the new chewing gum to help people stop smoking and asked if he'd be willing to try that. It took him about a month to get off of cigarettes. He's also lost some weight and I can't believe the change in this man.
>
> He says he can't believe it either. He says "I'm sleeping for the first time in years." That's what he attributes the big difference to--because of the depression he wasn't sleeping. He would get no more than 2 or 3 hours of sleep a night and now he says "I'm sleeping the whole night through...Everybody in the whole family notices the difference--his neighbors notice the difference."

This excert illustrates the significant changes that can be produced by skillful coaching. In the next excerpt the nurse practitioner explains how she spent time with the patient and sensed that he was motivated to change. She relates:

> I will give myself some credit because even though little seeds may have been planted before, I was successful in getting him to accept therapy. Maybe it was that I have a little more time than they do in the specialty clinics and maybe the time was just right for him to have someone say to him "would you be willing to try this one more time?"
>
> I look at him as one of my major successes because he's a whole different person now from when I saw him about a year ago. He's never said "thank you" and I don't expect him to, but he looks better, he feels better, and I give him a lot of credit for being willing to take the chance and try something.

This excerpt highlights the collaborative effort of the nurse practitioner and the patient. The nurse practitioner was skillful in her assessment of the patient's situation. She was aware of current treatment of depression and smoking

cessation and she was able to present interventions in a manner that the patient found acceptable. The patient was motivated to make an effort to change and he carried out the suggested interventions successfully. This situation is a rich exemplar of the impact of skillful coaching.

Situation #27 illustrates the patience, clinical judgment, and careful assessment that are involved in teaching-coaching. The nurse practitioner describes an adolescent couple with a baby who live with the father's parents and the mother's parents are nearby. The nurse practitioner relates that they have been a challenge for her to work with. They become so alarmed over what appear to be very normal incidents of spitting up, constipation, and fever, loose stools, and irritability following a DPT immunization that they call frequently and even brought the baby to the emergency room one night because they were so worried about his constipation. The nurse practitioner explains how she tries to be patient and supportive of the couple:

> I keep saying "you're doing a wonderful job and I support her, but it's just been interesting for me to see a couple that needs so much support even though they have such a built in support system. I need to find out more when they come the next time about what the family members are telling them.
>
> Concern with bowel movements is typical in pediatrics, but this is a little more than ususal. I have always been happy about being able to say "I'm here every day, call if you have a problem," but this is one situation where I now have to make very clear guidelines about when to call--because the father calls me, the mother calls me, but the grandparents never do. That's really the next step now to find out more about the grandparents and what their involvement is.

The nurse practitioner senses that this couple's anxiety is disproportionate to the situation and feels that this is incongruous given their readily available support system. This leads her to question the quality or consistency of the support the couple is receiving. She plans to explore more about the extended family during the next visit with this couple because she thinks there may be overinvolvement and conflicting expectations on the part of the grandparents. This example shows the careful, patient, skillful coaching necessary for trying to help adolescent parents learn how to care for their baby and become more independent in making decisions.

Effective Management of Rapidly Changing Situations

There was scant textual data relative to the domain of Effective Management of Rapidly Changing Situations (Benner, 1984a) although there was some evidence to support that this skill is carried over by the nurse practitioner from her previous practice as a nurse and it is operationalized when the situation warrants. Skilled Performance in Extreme Life-Threatening Emergencies: Rapid Grasp of a Problem and Contingency Management: Rapid Matching of Demands and Resources in Emergency Situations identified as competencies of this domain (Benner, 1984a, p. 111) were illustrated in situations #63 (see pp. 155-156) and #105 (see pp. 170-171 & 189-190) where the nurse practitioners skillfully assessed the situations and coordinated equipment, manpower, and resources to meet the patients' needs.

Summary

Interpretation of the text using the competencies from the two domains of nursing practice identified by Benner (1984a) that deal with diagnostic and monitoring functions and administering and intervening in acute care settings resulted in their combination and incorporation into a broader domain which typifies competencies of nurse practitioner practice in ambulatory care settings. Selected competencies from this domain considered to be particularly characteristic of nurse practitioner practice include those referring to becoming a primary care provider, attending to both disease and illness aspects of patients' situations, and emphasizing low technology interventions. Several competencies were expanded and some additional competencies were identified and described for the domain of nursing practice that relates to quality of care. Study of the competencies in this domain provided further evidence for continuities and discontinuities of nurse/nurse practitioner practice.

There were many similarities in the organizational and work role competencies characteristic of nurses and nurse practitioners. The additional competency identified by Fenton (1984) with clinical specialists for this domain (i.e., making the bureaucracy respond to patients' and families' needs) was also found to be typical of nurse practitioner practice. An additional competency was identified and described for this domain which relates to

remaining the primary care provider while referring patients to specialist physicians. The competencies of the domains of nursing practice relevant to the helping role and the teaching-coaching function were directly applicable to nurse practitioner practice with minimal alteration. A few changes in the competencies were indicated to characterize the greater emphasis on health maintenance and prevention and the central responsibility of the nurse practitioners for the overall care of patients.

These competencies are not intended to be an exhaustive list of the skilled practices of nurse practitioners. Further validation, expansion, extension, and refinement are expected as other nurse practitioners interpret the textual data and describe additional clinical situations.

CHAPTER VII

CONTINUITIES AND DISCONTINUITIES OF NURSE/NURSE PRACTITIONER PRACTICE

Analysis of the data collected in this study suggests that there are both continuities and discontinuities of nurse/nurse practitioner practice. Individual interviews were conducted with the study participants and questions were directed toward eliciting an understanding of their histories as nurses, their motivations for becoming nurse practitioners, their perceptions of satisfactions and dissatisfactions as nurses and nurse practitioners, their goals and expectations, and their perceptions of similarities and differences between the nurse practitioner role and the traditional provider role (See Appendix B for Interview Guide).

Motivations for Becoming A Nurse Practitioner

There were some commonalities in motivations described for becoming nurse practitioners. Table 11 depicts the frequency with which particular motivations were mentioned. The interest in a clinical role incorporating advanced knowledge, skill, and responsibility is apparent in these motivations.

Table 11

Motivations for Becoming A Nurse Practitioner

Factor	Frequency (more than one could be chosen)
Graduate Preparation for a Clinical Role	9
Serendipitous Events*	6
Challenge	4
Interest in Preventive Health	4
Fringe Benefits of Work	4
Independent Decision Making	3
Increase knowledge base for practice	3
Influenced by a Nursing Role Model	3
Clinical Role with Authority and Responsibility	2
Marketable Skills	2

Note. *Serendipitous events included:

1) The clinical specialty of choice was not available at the chosen school.
2) The hospital where the RN was working as a triage nurse closed.
3) An on the job pilot training program became available.
4) Deadlines for application to other programs had passed.

The interest in becoming involved in a healthier aspect of care was exemplified by one nurse practitioner who described a paradigm case of observing progressivepatient deterioration which sparked her interest in becoming involved in prevention.

> Nurse practitioner: After I was on the medical floor, I worked in the ICU a lot. I saw this one patient all the way through from the medical floor to the ICU. He had severe COPD and each time I saw him he got worse and worse. By the time I saw him in ICU, he was on the respirator. He was probably going to die within a month or so. And I said "Well, there had to be something done before this person got to this state. Is there any way that something could be done?" And then I thought of prevention. Perhaps if I could have seen him twenty years before, he might have changed. I decided to become a nurse practitioner because I felt that I might be able to have an impact on people before they become terminal.

There were many continuities or linkages from traditional nurse to nurse practitioner practice. It was found that nurse practitioner participants performed many basic nursing skills such as skin testing, immunizations, injections, blood pressure and pulse measurement, dressing changes, teaching, providing emotional support, attending to the lived experience of illness, mobilizing resources, collaborating with physicians and other health care personnel, and assessing general health status. Physical assessment and health history while more complete than those conducted in their prior nursing practice were not a completely new practice for these nurses. One nurse practitioner points out how her current practice builds on her prior experience as a nurse:

> I really think a nurse practitioner should be a real nurse for a while--to get herself organized. You need to learn that when there are other patients to care for, you can't spend three hours with the first one or you're going to be there until midnight. And nurses who have had to get all of their nurses' notes written before11PM to go home,have ultimately learned how to get organized.. . I'm not saying that every nurseis born organized, but if you want to go home, you learn how to do it. So, nurses bring that skill of organization to nurse practitioner practice.

Further support for continuity from the traditional nurse role to the nurse practitioner role is provided by the following interview excerpt:

> Nurse practitioner: I see the two roles, nurse and. nurse practitioner, as being very similar. I didn't do a lot of patient teaching and counseling in my previous nursing role because it's really hard to teach and counsel someone who is comatose, but basically I see teaching and counseling as central to the nursing role no matter what the setting.

Another nurse practitioner related several situations where continuity of knowledge and skill from previous experience as a nurse contributed to her ability to handle situations as a nurse practitioner. Two situations from early in her practice as a nurse practitioner involved drug toxicities. In situation #99 the nurse practitioner determines that a patient is suffering from Dilantin toxicity:

> Nurse Practitioner: A patient came in and kept falling asleep during the history taking. He had just left an alcohol treatment program and his probation officer brought him here. He had the most abnormal neuro exam that I've ever done. I could hardly arouse him, but he was oriented when he was aroused. I worked very hard to do that exam and make the assessment. It must have taken me 2 hours. I did everything so thoroughly and I figured out that he had dilantin toxicity. Then I called the neurologist and he came over and spent another hourwith the patient and then said "you're absolutely right, it's dilantin toxicity. We'll have to admit him to let him sleep it off."

In situation #100 the same nurse practitioner assesses Digoxin toxicity as another patient's underlying problem:

> A similar situation was when a couple brought in their aged father who was just slumped in the wheelchair drooling. He couldn't even talk to me. There was no way I could obtain a history from him. The couple said that his medication was changed after his last visit to the doctor. The only thing I could pre-guess was that he might be Dig toxic. I didn't know what Dig toxic looked like, except that I knew that it could alter orientation. I had a high level suspicion that that might be what was happening and so even before I did the history and physical, I sent him to the laboratory for a blood chemistry, a CBC, a urinalysis, and a Dig level. So by the time I completed the exam, the results were back and I was right.

In explaining her correct assessment of drug toxicity in both of these situations, the nurse practitioner said:

> One of the things I've brought from nursing into this

> role is that I am suspicious of drugs. In my previous nursing practice, I made a lot of assessments about drugs--idiosyncracies, toxicities, intolerances and I think that's really important. I have a high suspicion of drug toxicity.

The nurse practitioner went on to explain that what her nurse practitioner training provided was the ability to do a thorough history and physical. It gave her a framework for assessing the patient and figuring out what the underlying problem was.

In situation #104, the same nurse practitioner describes how she was so sure that there was something reallywrong with a patient who complained of back pain that she argued with a prestigious physician about the necessity for sending an ambulance to bring him to the hospital. When asked about how she could be so confident in her assessment, she replied:

> I've always had confidence in knowing there's something wrong with somebody, but what nurse practitioning has done is give me the history and physical skills so that I can figure it out myself.
>
> Investigator: So your confidence in your ability to sensethat something is wrong really developed a long time ago.
>
> Nurse Practitioner: Yes. And learning to argue with doctors... I really do believe that you learn from confrontation and negative experiences as well as positive ones. It broke the rules here because nobody ever argued with an attending physician before. It wasn't easy to do that.

The nurse practitioner had seen the patient previously and felt that further evaluation of his condition was beyond her expertise. The patient was brought in by ambulance and was seen by a physician as the nurse

practitioner had requested. However, the patient was sent home after the examination. The man's wife called the nurse practitioner back the next day and asked what they should do now. Both the wife and the nurse practitioner knew that there was something wrong with the patient. Fortunately, he had an appointment at another facility and the nurse practitioner advised them to go there. They went to the other facility where the man was admitted and cancer was subsequently diagnosed. This situation illustrates that the nurse practitioner's concern and advocacy for the patient takes precedence over her allegiance to the institution.

In discussing her courage to disagree with the attending physician, the nurse practitioner explained that she was the first nurse practitioner trained outside the institution and she knew that people did things differently in other places and that it was okay to break institutional rules--keeping in mind that patient care is the important thing. She said she always tries to make everything a learning experience even though it isn't always easy. After this incident the nurse practitioner arranged a meeting with the attending physician and they discussed the situation. She indicated that they both learned from it and have developed mutual respect for one another now.

Another nurse practitioner cited the importance of coordination of services as evidence of continuity between nurses and nurse practitioners:

> We are there every day. We are aware of the general operations of the clinic and know the patients. We are

> the expert that is there and knows what's going on all the time.

The significance of knowing the patient well was illustrated over and over again in this study in the nurse practitioner's ability to detect subtle changes in the patients.

Some expanded skills performed by the nurse practitioner participants included cryotherapy, minor surgical procedures such as removal of skin lesions and suturing, joint injection, writing but not signing prescriptions for medications, and assumption of responsibility for medical diagnosis, disease management, hospital admission, and medical clearance for surgery. Factors limiting further nurse practitioner role expansion observed in this study included restrictions on prescribing and admitting privileges, but the major factor was the nurse practitioner's own reluctance or willingness to assume more responsibility. Thus, role enactment was really individualized to the particular nurse practitioner's background and skill. Nurse practitioners self-monitored their capabilities in clinical situations. They obtained consultation or referred when they determined problems to be outside of their area of expertise. They sought assistance in learning to perform additional skills they were interested in.

Similarities in the satisfactions and dissatisfactions of the study participants with their previous nursing role and their current nurse practitioner role are depicted in

Table 12. One of the nurse practitioners stated:

> The things that are most dissatisfying about this place are the things that were most dissatisfying where I worked as a nurse before--the lack of support; not having a chart when you needed it; calling up for stat blood results and finding that only part of it has been done and the rest won't be done till 6PM.

One nurse practitioner mentioned dissatisfaction with lack of comparable pay for her increased responsibility. A few nurse practitioners mentioned dissatisfaction with the lack of a clear definition of the nurse practitioner role. They recognized that this was similar to the traditional nursing role. This lack of specificity undoubtedly contributes to the lack of recognition of the significant role played by nurses in health care.

Table 12

Satisfactions and Dissatisfactions Common to Traditional Nursing Roles and Nurse Practitoner Role

Satisfactions	Dissatisfactions
Taking good care of patients	Insufficient time for teaching
Monitoring and assessing patients	Nursing bureaucracy
Coordinating care	Abundance of paper work
Seeing and learning new things	Inadequate support services
Getting to know patients well	Lack of administrative power and authority
	Lack of recognition for knowledge and skill and contribution to patient care

Another nurse practitioner describes what she sees as similarities between the power and authority issues of traditional nurses and nurse practitioners. She states that she was amazed to learn that neither group in the institution where she is working belongs to the state nurses association in any large numbers and in fact theydiscourage one another from joining. This nurse practitioner states that she sees failure to recognize our power and to organize as a pervasive issue in nursing. She recalls:

> I remember last week there was a notice on the bulletin board stating that Dr. ______ was going to talk to us about the use of our power. And I thought, that's where we are--A physician has to talk to us about our power. Obviously we don't believe we have any.

The satisfactions and dissatisfactions identified by the study participants that were common to their traditional nurse roles and their nurse practitioner roles are consistent with those factors commonly referred to in the literature (Joiner & Servellen, 1984). The job satisfaction literature indicates that nurses like the work that they do, but dislike the organizational environment. A recent report described 41 hospitals that seemed to be "magnets" for professional nurses (Mc Clure, Poulin, Sovie, & Wandelt, 1983). The organizational environments in the "magnet" hospitals were characterized by automony, power, shared decision making, interdisciplinary practices, and multifaceted roles.

Although there are many similarities in the satisfactions and dissatisfactions of the study participants

with their prior nursing roles and their current nurse practitioner roles, there are some distinct improvements in the overall quality of the working life of nurse practitioners over traditional nursing staff positions. Table13 shows differences identified by the nurse practitioner study participants between their prior nursing roles and their current nurse practitioner role. Study of these factors may prove useful for suggesting modifications in the organization of traditional nursing work to enhance

Table 13

Differences between Nursing Roles

Prior Nursing Roles	Nurse Practitioner Role
Highly structured	More flexibility
Physical work	Sedentary work
Responsible for care provided by self and others	Primarily responsible for care provided by self
Lack ofcontrol over pace of work	Control of pace of work through scheduling
Limited power and authority in patient care decisions	More power and authority in patient care decisions
Shift work, weekends, & holidays	Regular day schedule, no weekends or holidays
Feeling of substitutabilty	Feeling of individuality
High job turnover	Low job turnover

jobsatisfaction, since the nurse practitioners were quite satisfied with their work as evidenced by the minimal turnover in positions as nurse practitioners. Several nurse practitioners described feeling more individual as nurse

practitioners than as traditional nurses as illustrated by the following interview excerpts.

> Nurse practitioner: My frustrations in working as a hospital nurse, well, there is a part of you that feels like a worker. You feel like you're punching in and punching out and there's a part that doesn't feel professional. I guess you look at a hospital and you see these masses of little white uniforms walking into the hospital and there are days that you just feel like one in the crowd and I really didn't like that. As a nurse practitioner I feel a little more individual.

> Another Nurse practitioner: Talking about the independence of the role, we are accountable to ourselves which is fairly new. In the hospital you really aren't, you are to a certain extent, but you always have people sort of looking over your shoulder and constantly evaluating what you do. Punching the time clock makes you feel more like an hourly worker. I feel more like this is a position rather than a job. I come and go when I want and when I finish my work, I go home. I feel like I'm more responsible... I feel like I work better on my own--when I'm not one in the crowd. I don't like getting dragged down by incompetent nurses.

These excerpts point to the discrepancy between the ideals of school and the realities of work. Nurses are taught to be autonomous professionals and when they work in hospitals they find that they are supervised by others and in addition that they are responsible for the quality of the service provided by other nurses and staff with whom they work.

The notion that "a nurse is a nurse is a nurse" is involved here. In hospitals nurses are required to help out in other areas when staffing is poor even though they may have no experience in that area. This situation has changed somewhat with the advent of intensive care units since it is recognized that intensive care nursing requires skills that

just any nurse cannot perform without additional training. However, intensive care nurses are sometimes rotated to other units when staffing is poor and they find this very dissatisfying. Assigning nurses to other units shows not only a lack of recognition of clinical expertise, but it also contributes to an erosion of the camaraderie of colleagues who work together and have common goals.

When experienced nurses looking for new jobs have the familiar pattern of requiring new nurses to work a year of evening or night shift thrust upon them, itbecomes clear that the view that one nurse can substitute for any other nurse is operating. For example, one of the study participants related that she had worked in a hospital emergency room as a triage nurse for many years and when the hospital closed she was unable to find a job in her specialty without first "paying her dues" by rotating shifts and working weekends as a staff nurse for a year. The absurdity of this practice becomes perhaps more apparent when you think how it would operate in medicine. A specialty physician would have to serve as an intern for a year if he wanted to move his practice to another hospital. What appears to underlie this practice is not only failure to recognize clinical expertise, but the tendency to reward institutional longevity with more attractive working hours and schedules. This makes shift rotation and weekend work even more objectionable since it is perceived as "paying dues" or punishment.

The satisfactions and dissatisfactions identified and described lend further support to Benner's (1984a) call for restructuring in clinical nursing as a career. Benner suggests that nursing has the potential to meet all the psychological requirements identified by Yankelovich (1974) as benefits people want to gain from their work. These requirements are:

> 1. The opportunity to advance to more interesting, varied, and more satisfying work that also pays better and wins more recognition than the current job.
> 2. The desire to do a good job at whatever one is doing.
> 3. The yearning to find self-fulfillment through "meaningful work." By meaningful work people usually mean:
> (a) work in which they can become involved, committed, and interested;
> (b) work that challenges them to the utmost of their capabilities; and
> (c) participation in decision making. (Yankelovich, 1974, p. 35).

When assessed in terms of the benefits people desire from their work, the traditional nursing role is sorely lacking. The interview data obtained in this study suggest that nurses derive satisfaction from taking good care of patients, but that they are frustrated by lack of control over their work situation, lack of participation in decision making, and lack of recognition. For the most part, the study participants described their nurse practitioner work as very satisfying. They often commented: "I love my work." Even though they indicated that they were frustrated by some of the same dissatisfactions in their nurse practitioner role as in their prior nursing roles, these dissatisfactions were less salient given their increased autonomy, feeling of

individuality, increased participation in clinical decision making, and improved work schedule. In terms of Yankelovich's requirements, the nurse practitioner role fares much better than the traditional nursing role. Interpretation of the interview data suggests that the nurse practitioner role provides all the requirements with the exception of increased recognition.

Summary

Continuities of nurse/nurse practitioner practice were noted in the satisfactions and dissatisfactions identified by the study participants with their prior nursing roles and their current nurse practitioner roles. Other continuities were described in the interviews. Motivations for becoming nurse practitioners described by participants during the individual interviews were presented. Satisfactions and dissatisfactions identified by study participants as characteristic of their prior nursing roles and current nurse practitioner roles were compared and contrasted. Continuities of nurse/nurse practitioner practice were noted in the similarities of these satisfactions and dissatisfactions. Discontinuities were discussed in reference to the differences between the satisfactions and dissatisfactions with prior nursing roles and the current nurse practitioner role in terms of benefits people desire from their work and the nurse practitioner role showed up in a more favorable light.

CHAPTER VIII

Summary and Discussion of Findings

Just as Lewis Thomas (1983) described nurses as the "glue" that keeps the complicated system of hospital care together, so the nurse practitioners in this study can be described as the "glue" that holds the complex system of hospital-based ambulatory health care delivery together. This study suggests that the diagnostic case mix in ambulatory care clinics is shifting toward a sicker group of patients as it has over the past 10 years in hospitals (Mechanic and Aiken, 1982). Many of the patients observed in this study receive the majority of their health care in hospital-based clinics from a variety of physician specialists.

Numerous situations pointed to the need for coordination and monitoring of the total picture of a patient's health care over time. Patients seeking care in ambulatory settings require expert clinical assessment for diagnosis and treatment of their complaints, triage for referral to specialists, and followup for health maintenance, disease detection and treatment, illness prevention and health promotion, and coordination of their care among a variety of specialists. Findings in this study suggest that nurse practitioners are well prepared to fulfill these important needs.

There was no evidence in this study to suggest that hospital-based physician specialists provide primary care.

Physician specialists in these settings serve primarily a consultative role. The common pattern observed was that of a patient seeing a variety of medical specialists for their different complaints. The specialists provided specific care for disease or system specific complaints and there was evidence of fragmentation of care which led to oversight of significant conditions, overlap of treatment, and inconsistencies. The nurse practitioners played an important role in coordinating patient care, detecting underlying conditions (such as carcimonas), and correcting potentially hazardous situations (such as discontinuing the inadvertent administration of drugs contradindicated for patients taking anticoagulants).

The composite picture of nurse practitioner practice in the hospital-based ambulatory care clinics affiliated with university medical centers studied here depicts an effective clinical role for nurse practitioners. Nurse practitioners have a broad base of knowledge in many areas which enables them to be very effective in triage of patients' complaints. They have highly developed clinical assessment, basic judgment, and interpersonal skills which prepare them for diagnosing patient problems while attending to the patient's experience in a manner characterized by attention to personal respect, dignity, comfort, and caring which is oriented toward increasing the patient's functional status.

This study provides further support for Martin's (1983)

finding that nurse practitioners emphasize low technology interventions. Martin's study indicates that not only do Family Nurse Practitioners cost less to train and employ, but they also provide less costly health care management than Family Practice Physicians. A common argument against the cost effectiveness of nurse practitioners is that they tend to have longer and more frequent visits than physicians. This study suggests that nurse practitioners do indeed have longer visits at more frequent intervals to monitor patients over time. Nurse practitioners schedule visits for monitoring, support, and maintaining personal contact.

This study provides suggestive evidence that this style of practice is associated with a low rate of hospitalization and complications. Randomized clinical trials and epidemiologial investigations are needed to determine the strength of the association of frequent and longer visits with decreased hospitalization and fewer complications with varied conditions and age groups. The nurse practitioners in this study emphasize self help interventions which in turn help increase patients' functional capabilities and thereby contribute to cost containment in terms of fewer days lost from work and less costly therapy. Teaching and counseling in self help strategies take time. Therefore initial visits may be longer, but the increased functional capacities and greater independence of patients results in a good return on the investment.

The nurse practitioner can perhaps best be described as a generalist who provides care for a broad range of common problems and concerns and who oversees and coordinates care provided by numerous physician specialists. Identification of nurse practitioners as generalists sheds light on the lack of recognition of the significance of their role in the present health care system which highly values specialization. This study demonstrates the nurse practitioners' skill in translating medical information and treatment plans into understandable directions and goals for patients with diverse lifestyles. The careful monitoring for complications, drug toxicities and incompatibilities, and treatment contradindications needed for attending to acute and chronic illness in the current era of high technology make close supervision and teaching-coaching central to health care. These competencies involve attention to the treatment of illness and illness behavior as well as disease.

The situations described in this study suggest that the practice of these nurse practitioners is complementary to the practice of physicians and substitutive in some respects. It is not a simple either or situation. Controversy over the precise role dimensions of nurses and physicians has been heightened and intensified by many factors including the predicted physician surplus, the shifting interface between nurses and physicians (most notably in intensive care units and nurse practitioner

practice), and the increased technology and commercialization of health care. As Mechanic and Aiken (1982) point out this controversy has unfortunately:

> often focused on the diverging interests and competitive strain between nursing and medicine, which is unnecessarily exaggerated and diverts attention from the core areas of health care in which doctors and nurses who work together can promote their mutual interests and those of their patients (p. 747).

Evidence from this study suggests that nurse practitioners provide a significant service to patients, which is valued not only by patients, but also by the physicians who work with them. For example the nurse practitioner's ability to help a child cope with the continuing care required for management of his immune deficiency (see Situation #24, pp.115-118) is highly valued by the immunologists with whom the nurse practitioner has established a collaborative, complementary relationship.

This study shows that nurse practitioners contribute an important dimension to ambulatory health care delivery by preserving caring in the highly technological, cost driven health care environment. They establish personal, egalitarian relationships with patients and attend to both the illness and disease aspects of patients' complaints. They coordinate care for patients who are seen by various specialists and keep track of their total situation. They monitor the comprehensive care of patients and help prevent the untoward consequences of overlap and oversight that are inherent in fragmented specialist health care delivery.

These observations can contribute to development of concepts and theory in primary health care, provider roles and functions, and helping relationships.

Several knowledge gaps were identified in this study. The amount and kind of information and understanding that patients have of their health problems and concerns is an area where knowledge is lacking. Although patient participation in care is highly valued and advocated by nurses, the limits of patient understanding and desire to participate need to be considered. There is evidence that nurse practitioners individualize their care and teaching to accommodate patient preferences and abilities. The impact of the trend toward formalization of patient teaching needs to be assessed. Study of patients' concerns, preferences, and health related knowledge need to be carried out to promote understanding of the complexity of these factors.

Development of ways to facilitate communication and collaboration between nurse practitioners and physicians is another area identified for investigation. Several models for cooperation between nurse practitioners and physicians are described in this study. They illustrate an example of the kind of collaboration that can take place between nurses and physicians. Mechanic and Aiken (1982) point out that greater differentiation of nurses according to their knowledge and skill would facilitate physician recognition of clinical nursing expertise and promote communication and collaboration. Nurse practitioners and intensive care

nurses constitute two groups of nurses whose clinical practice is more differentiated and distinct from other nurses. Differentiation of hospital nurses in terms of their education and experience can be promoted by rewarding clinical expertise in recognizable ways.

New knowledge identified in this study includes the competencies of nurse practitioner practice and descriptions of aspects of practical knowledge evident in nurse practitioner practice. This new knowledge can contribute to increased awareness of nurse practitioners' significant contribution to care and recognition of their clinical expertise. For example, now that "real disease declares itself" and "followup is everything" have been identified and described as maxims that communicate practical knowledge among experienced nurse practitioners, they can be studied systematically using a variety of methodological approaches.

The domains and competencies identified and described by Benner (1984a) with novice and expert hospital nurses, by Fenton (1984) with clinical specialists, and in this study with nurse practitioners can be used in: 1) educational settings for curriculum development and performance appraisal, 2) in practice settings for clarification of roles and functions and peer review, and 3) in the discipline of nursing as a whole to promote recognition of the complexity of clinical practice and awareness of the knowledge embedded in practice.

A new domain has been described to characterize the

competencies evident in the practice of nurse practitioners practicing in ambulatory care settings. Other domains of nursing practice described by Benner (1984a), specifically those relating to ensuring quality of care and organizational and work role competencies, have been expanded to incorporate the skilled practices of nurse practitioners. The helping role and teaching-coaching were two domains identified by Benner that were directly applicable to nurse practitioner practice with minimal modification.

Description of the nurse practitioners' skill in making qualitative distinctions in their assessments of patients contributes to understanding of embodied intelligence. Recognition of the perceptual skill involved in making graded qualitative distinctions in skin color, behavior patterns, varied disease and illness presentations, etc., increase awareness of the role of the body in skilled behavior and highlight the uniquely human aspects of clinical judgment. Although this embodied wisdom cannot be taught by precept or objectified in formal procedures or principles, it can be communicated through demonstration in actual clinical situations and through discourse about exemplars that maintain the relational and contextual aspects of actual situations.

The study findings increase understanding of human expertise by highlighting the complexity of nurse practitioner practice and the degree of discretionary

judgment that their practice requires. Continuing education of experienced nurse practitioners can be designed around exemplars and other aspects of practical knowledge (see Chapter V) to further develop and expand clinical expertise and as well as recognition of the significant contribution nurse practitioners make to patient care. It is hoped that this study will stimulate nurse practitioners to record their exemplars and paradigm cases and participate in the uncovering of aspects of practical knowledge through consensual validation and interpretive seminars.

Implications for Health Care

The data indicate that nurse practitioners make a major contribution to the preservation of caring in the highly specialized, commercialized, technological health care delivery system. The clinical situations described in this study demonstrate the significant service that nurse practitioners provide for patients through coordinating and providing ongoing comprehensive health and illness management. The nurse practitioners choreograph and keep track of the often fragmented services delivered by specialist health care providers. They fill in the gaps and help patients integrate and understand these multiple aspects of their care so that they can better manage their health and illness concerns in their everyday lives.

Benner(in press-b) states that "in an era of cost containment, marketing, and high technology caring more than ever is overlooked and unrewarded. This is a dangerously

blind position because without care a highly technical health care system cannot function" (p. 1). Benner's concern is shared by Levey and Hesse (1985) who comment that "a bottom-line mentality threatens to erode public trust in health care" (p. 644) and Relman (1980) who states that "danger arises from the tendency of the profit-making sector to emphasize procedures and technology to the exclusion of personal care" (p. 969).

In discussing the problems inherent in a free marketing approach to health care, Relman (1980) points out that "health care is different from most of the commodities bought and sold in the marketplace. Most people consider it, to some degree at least, a basic right of all citizens. It is a public rather than a private good" (p. 966). He adds that:

> Even when they have to pay out of their own pockets, patients who are sick or worried that they may be sick are not inclined to shop around for bargains. They want the best care they can get, and price is secondary. Hence, the classic laws of supply and demand do not operate because health-care consumers do not have the usual incentives to be prudent, discriminating purchasers (Relman, 1980, p. 966).

The fact that health care is becoming more and more commercialized and people who cannot afford to pay for services are finding it increasingly difficult to obtain adequate care is a crucial problem that supports Relman's (1980) assertion that:

> A major challenge--in fact, the major challenge--facing the health-care establishment today is to moderate use of our medical resources and yet protect equity, access, and quality (p. 967).

The potential consequences of highly technological health care delivery devoid of caring are frightening to consider. The original motivations for the primary care movement to provide accessible, comprehensive, quality health care for all must be reemphasized and actualized. Nurse practitioners have demonstrated their significant contribution to providing high quality primary health care that fosters the judicious use of high technology and promotes safety and acceptability through careful monitoring and teaching.

Study findings suggest that a strong case can be made for employing nurse practitioners in ambulatory health care clinics in an era of cost containment and physician surplus because nurse practitioners have the general broad background knowledge and experience needed to provide the majority of care required by patients in these settings, as well as the coordination skills and knowledge of resources to oversee the care provided by a myriad of specialists. One of the study sites provides a model for cost effective high quality care delivery that uses the knowledge and skills of nurse practitioners and physicians in a complementary manner. At this site there is a group of nurse practitioners who provide care to patients in a walk-in clinic with physician consultation readily available. One physician can provide medical consultation for a group of nurse practitioners and thereby provide quality care at lower cost. This is effective use of manpower and resources that provides satisfaction and challenge for the care providers.

The argument that physicians can do more procedures than nurse practitioners, such as sigmoidoscopies, and should therefore be employed instead of nurse practitioners is erroneous. Physicians are more costly to train and employ and the fact that technical procedures are sometimes necessary doesn't dictate that the most highly trained person should be employed for the majority of patient complaints. In addition, there is evidence that nurse practitioners collect very thorough, accurate patient histories. They form egalitarian relationships with patients and make them feel comfortable enough to share their problems and concerns. They collect relevant data about patients' lifestyles and circumstances and assess situations in the context of the patients' everyday lives with sometimes significant results. Since history taking is a skill required at all times and in every case in ambulatory care, it is efficient and effective to employ nurse practitioners to assess and manage patients' presenting problems with physician consultation.

This observation is consistent with Diers' (1983) concept of the nurse practitioner as the "gatekeeper" in primary care. She conceives of nurse practitioners in primary care as the first line of care providers. Diers comments that "what is crucial to making this new primary care system work is that one person [the primary care nurse] knows everything that is going on with the patient and can pull it all together" (p. 745).

Nursing Implications

As Benner (in press-b) points out, our language shapes our understanding. Over the past decade there has been a transition from referring to people who seek health care as "patients" to calling them "clients." Since language is constitutive and expressive, not just designative and denotative (Taylor, 1982), such transitions in terms can result in failure to attend to the impact of illness and disease on health care seeking, fuel the current marketing approach to health care, and foster a view of the patient as a consumer who freely chooses goods and services. Therefore, such linguistic transitions should not be taken lightly.

It is noteworthy that the nurse practitioners in this study consistently referred to persons seeking their care as "patients" and not "clients." This is significant because they all learned the concepts of participatory care and strategies to promote compliance in their nursing courses. In their clinical practice, they have been able to maintain a distinction between using health care contracting as a strategy to increase participation in care and seeing their relationships with patients as contractual.

The exemplars described in this study illustrate that the nurse practitioners have preserved the idea of health providers as healers who form personal relationships with patients that are characterized by caring. Caring is used here in the sense that Benner (in press-b) has identified,

i.e., the term caring "reflects interpersonal concern and liking so that the other person's plight and fate matters to the one who cares" (p. 9). Such caring is possible only from a committed involved stance which sometimes demands that beneficent actions take precedence over promoting patient autonomy or institutional tranquility.

An additional nursing implication is that the study findings suggest that the nurse practitioner role offers satisfying, challenging opportunities for nurses who practice in positions where job turnover is very low. Further study of the organizational environment of nurse practitioner practice settings and the factors influencing their job stability may be helpful for planning changes in traditional nursing roles (where job turnover is high) to enhance job satisfaction and career development.

Future Research

This study extends and expands previous research into the nature and significance of clinical nursing expertise. Future studies of other groups of nurses in other settings are indicated to contribute to increased recognition and understanding of the knowledge embedded in clinical practice. The text generated in this study can serve as a data bank for secondary analysis and consensual validation of the practical knowledge exemplified in the clinical situations. It is hoped that the interpretations will stimulate other nurse practitioners to describe additional exemplars to expand and extend clinical knowledge

development. Future studies incorporating other care providers and patients and varied methodologies are indicated to further assess the validity of the interpretations.

Summary

This study demonstrates that nurse practitioner practice provides a rich medium for uncovering knowledge embedded in nursing practice. The contention that nurse practitioners are indeed practicing nursing is supported by the study findings. Evidence is presented which indicates that the practice of the nurse practitioners in this study is exemplified by the following commonly recognized aspects of the discipline of nursing: 1) holistic personalized assessment; 2) involvement of patient/family in care; 3) incorporation of health maintenance and promotion into care along with illness treatment and detection; and 4) inclusion of teaching, counseling, and supportive interventions.

The domains and competencies of nursing practice described by Benner (1984a) characterize central components of nurse practitioner practice giving further credence to the claim that there are many continuities in nurse/nurse practitioner practice. Nurse practitioner practice in the hospital-based ambulatory care clinics studied is complementary to care provided by physician specialists. Nurse practitioners provide continuous, comprehensive care for patients which fills in a major gap in the fragmented

specialist-intensive ambulatory health care system and enhances the quality and safety of the care provided.

References

Agar, M. (1980). Hermeneutics in Anthropology: A review essay. Ethos, 8(3), 253-272.

Agar, M. (1982). Toward an ethnographic language. American Anthropologist, 84, 779-795.

Aiken, L. H. (1977). Primary care: The challenge for nursing. American Journal of Nursing, 77, 1828-1832.

Aiken, L. H., Lewis, C. E., Craig, J., Mendenhall, R. C., Blendon, R. J., & Rogers, D. E. (1979). The contribution of specialists to the delivery of primary care. New England Journal of Medicine, 300, 1363-1370.

American Academy of Nursing. (1977). Primary care by nurses: Sphere of responsibility and accountability. Kansas City, MO: American Nurses Association.

American Nurses Association. (1976). Scope of primary nursing practice for adults and families. Kansas City, MO: American Nurses Association. (ANA Pub. No. CH-82M3/78R).

Anderson, N. D. (1979). Human interaction for nurses. Supervisor Nurse, 10(10), 44-50.

Aspinall, M. J. (1976). Nursing diagnosis--the weak link. Nursing Outlook, 24, 433-437.

Aspinall, M.J. (1979). Use of a decision tree to improve accuracy of diagnosis. Nursing Research, 28(3), 182-185.

Aspinall, M.J. & Tanner, C. A. (1981). Decision making for patient care applying the nursing process. New York: Appleton-Century-Croft.

Albert, D. A. (1978). Decision therory in medicine a review and critique. Milbank Memorial Fund Quarterly Health and Society, 56(3), 362-401.

Beauchamp, T. L. & Childress, J. F. (1979). Principles of biomedical ethics. NY: Oxford University Press.

Benner, P. (1982). Issues in competency-based testing. Nursing Outlook, 30(5), 303-309.

Benner, P. (1983). Uncovering the knowledge embedded in clinical practice. Image The Journal of Nursing Scholarship, 15(2), 36-41.

Benner, P. (1984a). From novice to expert: Excellence and power in clinical nursing practice. Menlo Park: Addison-Wesley.

Benner, P. (1984b). Stress and satisfaction on the job: Work meanings and coping of mid-career men. New York: Praeger.

Benner, P. (1985a). The oncology clinical specialist: An expert coach. Oncology Nurse Forum, 12(2), 40-44.

Benner, P. (1985b). Heideggerian phenomenology. Abstract of presentation delivered at the Third Annual Research in Nursing Education Conference, San Francisco, January 10.

Benner, P. (1985c). The role of intuition in the clinical judgment of experienced nurses. Presentation at the Second Annual Research Day of the School of Nursing, University of California, San Francisco, April 3.

Benner, P. (in press-a). Explanation, prediction and understanding in nursing science: A hermeneutical perspective. Advances in Nursing Science.

Benner, P. (in press-b). Preserving caring in an era of cost-containment, marketing, and high technology. Yale Nurse.

Benner, P. & Benner, R. V. (1979). The new nurse's work entry: A troubled sponsorship. New York: Tiresias.

Benner, P. & Wrubel, J. (1982). Skilled clinical knowledge: The value of perceptual awareness. Nurse Educator, 7(3), 11-17.

Bibb, B. N. (1982). Comparing nurse practitioners and physicians. Evaluation & The Health Professions, 5(1), 29-42.

Billingsley, M. C. & Harper, D. C. (1982). The extinction of the nurse practitioner: Threat or reality? The Nurse Practitioner, 7(9), 22-30.

Blois, M. S. (1980). Clinical judgment and computers. New England Journal of Medicine, 303, 192-197.

Bower, F. L. (1979). Relationship of practice setting variables to nurse practitioner performance. (Doctoral dissertation, University of California San Francisco, School of Nursing). Dissertation Abstracts, 40:1, 674-B-675-B. (University Microfilms No. 7918200).

Bruner, J. S., Goodnow, J. J., & Austin, G. A. (1956). A study of thinking. NY: Wiley.

Brykczynski, K., Hayes, W. S., & Waters, L. D., et al. (1981). Nursing faculty develop primary care skills. Nursing & Health Care, 2(10), 538-542.

Buehler, J. (1982). Nurses and physicians in transition. Ann Arbor, MI: University Microfilms International Research Press. (Revision of doctoral thesis, University of California San Francisco, 1980).

Carter, M. A. (1979). An examination of the relationships among characteristics of selected family nurse practitioners, their settings, and their practices. (Doctoral dissertation, Boston University School of Nursing). Dissertation Abstracts International, 40(5), 2120-B-2121B. (University Microfilms No. 7923962).

Cherniss, C. (1980). Professional Burnout in Organizations. NY: Praeger.

Cheyovich, T. K., Lewis, C. E., & Gortner, S. R. (1976). The nurse in an adult outpatient clinic. (DHEW Publication No. HRA 76-29). Bethesda, MD: Division of Nursing.

Cook, T. D. & Campbell, D. T. (1979). Quasi-experimentation Design and analysis issues for field settings. Boston: Houghton Mifflin.

Davidson, R. A. & Lauver, D. (1984). Nurse practitioner and physician roles: Delineation and complementarity of practice. Research in Nursing & Health, 7, 3-9.

Davis, B.G. (1972). Clinical expertise as a function of educational preparation. Nursing Research, 21(5), 530-534.

Davis, B.G. (1974). Effect of levels of nursing education on patient care: A replication. Nursing Research, 23(2), 150-155.

Dickoff, J., James, P., & Wiedenbach, E. (1968). Theory in a practice discipline. Part 1. Practice oriented theory. Nursing Research, 17, 415-435.

Diers, D. (1979). Research in nursing practice. Philadelphia: Lippincott.

Diers, D. & Molde, S. (1979). Some methodological issues in nurse practitioner research. Research in Nursing and Health, 2, 73-84.

Diers, D. & Molde, S. (1983). Nurses in primary care The new gatekeepers? American Journal of Nursing, 83, 742-745.

Dilthey (1976). Selected writings. (H. P. Rickman, Trans. & Ed.). London: Cambridge University Press. (Original work published 1833-1911).

Dreyfus,H. L. (1979). What computer's can't do. (rev. ed.). NY: Harper & Row.

Dreyfus, H. L. (1980). Holism and hermeneutics. Review of Metaphysics, 34, 3-23.

Dreyfus, H. L. (1984). Why current studies of human capacities can never be scientific. Berkeley Cognitive Science Report No. 11. Berkeley: Cognitive Science Program, Institute of Human Learning, University of California.

Dreyfus, H. L. (in press). Being in the world: A commentary on Heidegger's Being and Time Division I.

Dreyfus, H. L. & Dreyfus, S. E. with T. Athanasiou. (in press). Mind over machine. NY: Macmillan Free Press.

Dreyfus, H. L. & Haugeland, J. (1978). Husserl and Heidegger: Philosophy's last stand. In M. Murray (Ed.). Heidegger and modern philosophy. (pp. 222-229). New Haven: Yale University Press.

Dreyfus, H. L. & Rabinow, P. (1982). Introduction. In Michael Foucault beyond structuralism and hermeneutics. (pp. xiii-xxiii). Chicago: University of Chicago Press.

Dreyfus, S. E. (1982). Formal models vs. human situational understanding: Inherent limitations on the modeling of business expertise. Office: Technology and People, 1, 133-165.

Dreyfus, S. E. (1983). Beyond reasoned analysis ... How expert managers tend to let the gut lead the brain. Management Review, 56-61.

Ebbesen, E.B. & Konecni, V.J. (1980). On the external validity of decision making research: What do we know about decisions in the real world? In T. S. Wallsten (Ed.). Cognitive processes in choice and decision behavior. Hillsdale, NJ: Lawrence Erlbaum.

Edmunds, M. W. (1978). Evaluation of nurse practitioner effectiveness: An overview of the literature. Evaluation and the Health Professions, 1, 69-82.

Edmunds, M. (1984). When you think the doctor is wrong. Nurse Practitioner: The American Journal of Primary Health Care, 9(2), 69-72.

Elstein, A.S. & Bordage, G. (1979). Psychology of clinical reasoning. In G.C. Stone, F. Cohen & N.E. Adler (Eds.). Health psychology--A Handbook (pp. 333-367). San Francisco: Jossey-Bass.

Elstein, A.S., Shulman, L.S., & Sprafka, S.A. (1978). Medical problem solving. An analysis of clinical reasoning. Cambridge, MA: Harvard University.

Engel, G. L. (1977). The care of the patient: Art or science? The John Hopkins Medical Journal, 140(5), 222-232.

Fagin, C. (1981). Primary care as an academic discipline. In I. G. Mauksch (Ed.). Primary care, a contemporary nursing perspective. (pp. 13-30). NY: Grune & Stratton.

Feinstein, A. R. (1967). Clinical Judgment. NY: R. E. Kreiger.

Fenton, M. V. (1984). Identification of the skilled performance of master's prepared nurses as a method of curriculum planning and evaluation. In P. Benner From novice to expert. Excellence and power in clinical nursing practice. (pp. 262-274). Menlo Park: Addison-Wesley.

Fisher, D. W. & Horowitz, S. M. (1977). The physician's assistant: Profile of a new health profession. In A. A. Bliss & E. D. Cohen (Eds.). The new health professionals. (pp. 40-54). Germantown, MD: Aspen.

Ford, L. C. (1979). A nurse for all settings: The nurse practitioner. Nursing Outlook, 27(8), 516-521.

Ford, L. C. (1982). Nurse practitioners: History of a new idea and predictions for the future. In L. H. Aiken (Ed.). Nursing in the 1980s crises, opportunities, challenges. (pp.231-247). Philadelphia: Lippincott.

Glaser, B. G. & Strauss, A. (1967). The discovery of grounded theory. Chicago: Aldine.

Goodwin, L., Prescott, P., Jacox, A., & Collar, M. (1981). The nurse practitioner rating form. Part 2: Methodological development. Nursing research, 30, 270-276.

Gordon, D. & Benner, E. (1980). Guideline for recording critical incidents. AMICAE Project, University of San Francisco.

Gordon, D. (1984). Research application: Identifying the use and misuse of formal models in nursing practice. In P. Benner. From novice to expert. Excellence and power in clinical nursing practice. (pp. 225-243).

Gordon, M. (1972). Strategies in probabilistic concept attainment. (Doctoral dissertation, Boston College). Dissertation Abstracts International, 33(10), 5551-A. (University Microfilms No. 73-8237).

Gordon, M. (1980). Predictive strategies in diagnostic tasks. Nursing Research, 29(1), 39-45.

Gortner, S. R. (1979). Trends and historical perspective. In F. S. Downs & J. W. Fleming (Eds.). Issues in nursing research. (pp. 1-23). NY: Appleton-Century-Crofts.

Gortner, S. R. (1982). Commentary. In L. H. Aiken (Ed.). Nursing in the 1980s. Crises, opportunities, challenges. (pp. 495-502). Philadelphia: Lippincott.

Grier, M.R. (1976). Decision making about patient care. Nursing Research, 25(2), 105-110.

Grier, M.R. & Schnitzler, C.P. (1979). Nurses' propensity to risk. Nursing Research, 28(3), 186-191.

Hammond, K.R. (1964). Clinical inference in nursing: A methodological approach. Nursing Research, 13(4), 315-319.

Hammond, K.R. (1966). Clinical inference in nursing. Nursing Research,15(1), 27-38.

Hammond, K.R. & Adelman, L. (1976). Science, values, and human judgment. Science, 194(4263), 389-396.

Hammond, K.R., Kelly, K.J., Schneider, R.J., & Vancini,M. (1966a). Clinical inference in nursing analyzing cognitive tasks representative of nursing problems. Nursing Research, 15(2), 134-138.

Hammond, K.R., Kelly, K.J., Schneider, R.J., Vancini, M. (1966b). Clinical inference in nursing information units used. Nursing Research, 15(3), 236-243.

Hammond, K.R., Kelly, K.J., Castellan, N.J., Jr., Schneider, R.J., & Vancini, M. (1966c). Clinical inference in nursing: Use of information-seeking strategies by nurses. Nursing Research, 15(4), 330-336.

Hammond, K.R., Kelly, K.J., Schneider, R.J., Vancini, M. (1967). Clinical inference in nursing: Revising judgments. Nursing Research, 16(1), 38-45.

Hansen, C. (1981). Living in with normal families. Family Process, 20, 53-75.

Heidegger, M. (1962). Being and time. NY: Harper & Row. (Originally published in German 1927).

Heisenberg, W. (1958). Physics and philosophy. NY: Harper.

Henderson, V. A. (1980). Preserving the essence of nursing in a technological age. Journal of Advanced Nursing. 5, 245-260.

Hochheiser, L. (1974). Summary. In L. Hochheiser, J. Lewis, & H. Bailit (Eds.). Proceedings of the nurse practitioner research conference. (pp. 80-89). University of Connecticut. Bethesda, MD: Division of Nursing.

Jacobs, K. D. (1980). Does the nurse practitioner involve the patient in his care? Nursing Outlook, 28(8), 501-505.

Jacox, A., Prescott, P., Collar, M. K., & Goodwin, L. D. (1981). A primary care process measure the nurse practitioner rating form. Wakefield, MA: Nursing Resources.

Joiner, C. & Servellen, G. M. van (1984). Job enrichment in nursing. Rockville, MD: Aspen.

Kelly, K.J. (1964). An approach to the study of clinical inference in nursing. Part 1. Introduction to the study of clinical inference in nursing. Nursing Research, 13(4), 314-322. Part 3. Utilization of the "Lens Model" method to study the inferential process of the nurse. Nursing Research, 13(4), 319-322.

Kleinman, A., Eisenberg, L., & Good, B. (1978). Culture, illness, and care. Clinical lessons from anthropologic and cross-cultural research. Annals of Internal Medicine, 88, 251-258.

Kuhn, T. (1970). The structure of scientific revolutions. (2nd ed). Chicago: University of Chicago.

Ledley, R.S. & Lusted, L.B. (1959). Reasoning foundations of medical diagnosis. Science, 130 (3366), 9-21.

Levy, S. & Hesse, D. D. (1985). Bottom-line health care? New England Journal of Medicine, 312, 644-647.

Lewis, C. E., Resnick, B. A. Schmidt, G., & Waxman, D. (1969). Activities, events and outcomes in ambulatory patient care. New England Journal of Medicine, 280, 645-649.

Lewis, M. A. (1980). Managing nurse practitioners in ambulatory care: What are the issues? Journal of Nursing Administration, 10,(7), 11-17.

Lewis, T. (1983). Nurses. In T. Lewis. The youngest science. Notes of a medicine watcher. (pp. 61-67). NY: Viking.

Lindeman, C. A. (1985). Experiment in role restructuring toward practice. Panel member at the Second Annual Nursing Faculty Practice Symposium, Phoenix, January 25.

Mallick, M. J. (1981). Patient assessment--based on data, not intuition. Nursing Outlook, 29(10), 600-605.

Martin, L. L. (1983). Resource use in medical office practice. (Doctoral dissertation, University of California Berkeley). Dissertation Abstracts International, 44(8), 2375-B. (University Microfilms No. DA8328767).

Mauksch, I. G. (1975). Nursing is coming of age . . through the practitioner movement. Pro. American Journal of Nursing, 75, 1834-1843.

Mauksch, I. G. (1981). Introduction. In I. G. Mauksch (Ed.). Primary care a contemporary nursing perspective. (pp. 1-11). NY: Grune & Stratton.

McCain, R. F. (1965). Nursing by assessment--not intuition. American Journal of Nursing, 65, 82-84.

McClure, M., Poulin, M., Sovie, M., & Wandelt, M. (1983). Magnet hospitals--Attraction and retention of professional nurses. Kansas City, MO: American Nurses Association. American Academy of Nursing Task Force on Nursing Practice in Hospitals.

McGivern, D. (1974). Baccalaureate preparation of the nurse practitioner. Nursing Outlook, 22, 94-98.

Mechanic, D. & Aiken, L. H. (1982). A cooperative agenda for medicine andnursing. New England Journal of Medicine, 307, 747-750.

Merleau-Ponty, M. (1962). Phenomenology of perception. (C. Smith, Trans.). NJ: Humanities Press. (Original work published in French 1934).

Millis, J. S. (1977). Primary care: Definition of, and access to... Nursing Outlook, 25, 443-445.

Moscovice, I. (1978). The influence of training level and practice setting on patterns of primary care provided by nursing personnel. Journal of Community Health, 4(1), 4-

14.

Newell, A. & Simon, H. A. (1972). Human problem solving. Englewood Cliffs, NJ: Prentice-Hall.

Polanyi, M. (1958). Personal Knowledge. Chicago: University of Chicago Press.

Prescott, P. A. & Driscoll, L. (1979). Nursing practitioner effectivesness. A review of physician-nurse comparison studies. Evaluation & the Health Professions, 2(4), 387-418.

Prescott, P. A., Jacox, A., Collar, M., & Goodwin, L. (1981). The nurse practitioner rating form. Part 1: Conceptual development and potential uses. Nursing Research, 30, 223-228.

Rabinow, P. & Sullivan, W. M. (1979). The interpretive turn: Emergence of an approach. In P. Rabinow & W. M. Sullivan (Eds.). Interpretive social science a readers. (pp. 1-21). Berkeley: University of California Press.

Ramsay, J., McKenzie, J., Fish, D. (1982). Physicians and nurse practitioners: Do they provide equivalent health care? American Journal of Public Health, 72, 55-57.

Relman, A. S. (1980). The new medical-industrial complex. New England Journal of Medicine, 303, 963-970.

Reynolds, R. E. (1975). Primary care, ambulatory care, and family medicine: Overlapping but not synonymous. Journal of Medical Education, 50, 893-895.

Rogers, M. E. (1975). Nursing is coming of age . . . through the practitioner movement. Con. American Journal of Nursing, 75, 1834- 1843.

Rosch, E. (1977). Human categorization. In N. Warren (Ed.). Studies in Cross Cultural Psychology. Vol.1. (pp.1-49). NY: Academic Press.

Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (Eds.). Cognition and categorization.(pp. 27-48). Hillsdale, NJ: Lawrence Erlbaum Associates.

Runyan, J. W., Jr. (1975). The Memphis chronic disease program. Comparisons in outcome and the nurse's extended role. Journal of American Medical Association, 231, 264-267.

Schulman, J., Jr., & Wood, C. (1972). Experience of a nurse practitioner in a general medical clinic. Journal of American Medical Association, 219, 1453-1461.

Secretary's Committee to Study Extended Roles for Nurses. (1972). Extending the scope of nursing practice. Nursing Outlook, 20, 46-52.

Simon, H.A. (1957). Models of man: Social and rational. NY: Wiley.

Simon, H. A. (1979). Rational decision making in business organizations. American Economic Review, 69, 493-513.

Spitzer, W. O. (1984). Editorial. The nurse practitioner revisited slow death of a good idea. New England Journal of Medicine, 310, 1049-1051.

Sultz, H. A., Henry, O. M., & Carroll, H. D. (1977). Nurse practitioners: An overview of nurses in the expanded role. In A. Bliss & E. Cohen (Eds.). The new health professionals. (pp. 9-39). Germantown, MD: Aspen.

Tanner, C. A. (1977). The effect of hypothesis generation as an instructional method on the diagnostic processes of senior baccalaureate nursing students. (Doctoral dissertation, University of Colorado). Dissertation Abstracts International, 38(7), 4062-A-4063-A. (University Microfilms No. 77-29983).

Tanner, C. A. (1983). Research on clinical judgment. In W. L. Holzemer (Eds.). Review of research in nursing education. (pp. 2-32). Thorofare, NJ: Slack.

Taylor, C. (1979). Interpretation and the sciences of man. In P. Rabinow & W. M. Sullivan (Eds.). Interpretive social science a reader. (pp. 25-71). Berkeley: University of California Press.

Taylor, C. (1982). Theories of meaning. Dawes Hicks Lecture. Read November 6, 1980. Proceedings of the British Academy. (pp. 283-327). Oxford: University Press.

Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124-1131.

Wallsten, T. S. (1980). Processes and models to describe choice and inference behavior. In T. S. Wallsten (Ed.). Cognitive processes in choice and decision behavior. Hillsdale, NJ: Lawrence Erlbaum.

Weston, J. L. (1975). Whither the "nurse" in nurse practitioner? Nursing Outlook, 23, 148-152.

Williams, C. A. (1975). Nurse practitioner research: Some neglected issues. Nursing Outlook, 23(3), 172-177.

Yankelovich, D. (1974). The meaning of work. In J. Rosow (Ed.). _The worker and the job: Coping with change_. Englewood Cliffs, NJ: Prentice-Hall.

Yedida, M. (1981). _Delivering primary health care nurse practitioners at work_. Boston: Auburn House.

APPENDIX A

Clinical Situation Interview Guide

You are being asked to describe incidents from your clinical practice. These incidents will serve as a text, the interpretation of which, will be the focus of a doctoral dissertation to explore the clinical practice of nurse practitioners. An incident refers to an outstanding episode from your clinical experience which had an impact on your practice. It includes situations in which 1) you feel that your intervention really made a difference in patient outcomes; 2) things went unusually well; 3) things did not go as planned; 4) the episode was very ordinary and typical; 5) the episode seems to capture the quintessence of nursing; and 6) things were particularly demanding.

You are being asked to give a narrative account of an incident including as much detail as possible. Details about the context of the situation, such as intentions, interpretations, concerns, chronology, setting, etc. should be as complete as possible.

In describing the episode try to include: 1) why you feel the incident was noteworthy or memorable; 2) the context of the situation; 3) a detailed account of what took place; 4) what your concerns were at the time; 5) what you were thinking about while it was taking place; 6) how you felt during and after the incident; 7) a description of what, if anything, you found most demanding about the situation; and 8) what, if anything, you found particularly

satisfying about the incident.

The narrative accounts of your clinical incidents will be shared with the investigator and the other participating nurse practitioners in an effort to discover the background knowledge and meanings that are implicit and unrecognized because they are so taken for granted. The task will be to notice these implicit aspects. It is the same difficulty that an anthropologist encounters when studying in his or her own culture.

Questions to guide in obtaining narrative accounts of memorable clinical incidents include:

1) Why you feel the incident was significant?

2) How would you describe the context of the situation?

3) Can you give a detailed account of what took place?

4) What were your concerns at the time?

5) What were you thinking about while it was taking place?

6) How did you feel during and after the incident?

7) Please describe what, if anything, you found most demanding about the situation?

8) What, if anything, did you find particularly satisfying about the incident?

APPENDIX B

Individual Interview Guide

Questions to further explore the clinical practice of nurse practitioners include:

1) There are similarities as well as differences between the nurse practitioner role and more traditional nursing roles. a) What sort of work did you do as a nurse before becoming a nurse practitioner?

Probe: Can you describe what a typical day was like.

b) How would you describe your work as a nurse practitioner?

Probe: Can you describe a typical day.

2) We all know that ideals are difficult to achieve in the real world. The ideals in primary health care are to provide care that is personalized, holistic, comprehensive in terms of health and illness, family centered, and participatory in terms of activepatient involvement.

a) Would you describe yourself as a primary care provider?

b) What does primary care mean to you?

c) What barriers do you encounter in trying to provide care?

d) What helps you provide such care?

e) Can you describe ways that you try to personalize care?

f) How do you incorporate a holistic perspective?

g) What are the major things you do in terms of health

maintenance and promotion activities?

1. What percentage of time do you spend on health maintenance and promotion activities?______%

2. What percentage of time do you spend on illness detection and treatment activities?_____%

h) Could you describe ways that you involve the family in your care?

i) How do you promote patient involvementin your practice?

3) It is common for the nurse practitioner's caseload to include a preponderance of patients characterized by lower income, absence of health insurance, minority ethnic group, noncompliance, complex multifaceted problems of longterm nature, etc.a) Do your patients fit this typical picture? (Explain).

Probe: How would you describe your practice?

b) Given the demanding nature of your clinical practice, how do you keep going? or What helps you sustain your energy and effort in the face of these difficulties?

4) Now lets contrast the nurse practitioner role with the traditional provider role. What I mean by traditional provider is the Parsonian concept of the active paternalistic provider and the passive patient; the epitome of which is the specialist physician. a) How would you characterize your relationship with patients in contrast to

traditional provider-patient relationships? or in common with them?

5) It is often claimed that nurse practitioners contribute an additional dimension to primary health care in terms of teaching, counseling, and supportive interventions. Studies indicate that setting factors can impede or enhance this aspect of care.

a) What barriers, if any, have you encountered?

b) What facilitators?

c) What are your major practices and goals in providing teaching?

d) counseling?

e) supportive interventions?

6) What do you do for patients that you consider to be particularly effective?

Probe: Have you any particular areas of expertise? (Describe).

7) How do you assess the effectiveness of the care you provide?

APPENDIX C

Demographic Questionnaire

NAME:(optional) ________________________________ DATE: _____

1. AGE: (write in age in years) ____ 1

2. SEX: ____ 2
   1 = female
   2 = male

3. MARITAL STATUS: ____ 3
   1 = single
   2 = married
   3 = widow
   4 = separated
   5 = divorced

4. EDUCATIONAL BACKGROUND:

   Basic Nursing Preparation ____ 4
   1 = diploma
   2 = associate degree
   3 = BSN

   YEAR OF GRADUATION: (write in last two digits of year) ____ 5

   Nurse Practitioner Preparation ____ 6
   1 = short-term continuing ed
   2 = long-term continuing ed
   3 = on the job training
   4 = baccalaureate
   5 = Master's in nursing
   6 = Master's in health science

   YEAR OF COMPLETION: (write in last two digits of year) ____ 7

5. EXPERIENTIAL BACKGROUND:

   Length of time in active practice as a nurse prior to practitioner training ____ 8
   1 = none
   2 = less than one year
   3 = 1-2 years
   4 = 3-5 years
   5 = 6-10 years
   6 = 11 years or more

Number of hours per week in practice as an RN prior to NP training(write in) ___ 9

Length of time in active practice as a nurse practitioner: ___ 10
1 = 1-6 months
2 = one year
3 = 2-4 years
4 = 5-10 years
5 = 11 years or more

Number of hours per week in fulltime practice (write in) ___ 11

6. Specialty:
PREPARED IN: ___ 12

WORK IN: ___ 13

1 = Adult
2 = School Age
3 = Pediatrics
4 = Geriatrics
5 = Family
6 = Women's health
7 = other (specify) ____________________

7. TITLE: ___ 14
1 = nurse practitioner
2 = nurse clinician
3 = clinical specialist
4 = other (specify) ____________________

8. Specialty Certification: type ___ 15
0 = not applicable
1 = American Nurses Association
2= NAACOG (National Association of American Collegeof Obstetrics and Gynecology)
3 = NAPNAP (National Association of Pediatric Nurse Associates and Practitioners)
4 = other (specify) ____________________

Date first certified (write in last two digits of year) ___ 16

Most recent certification date ___ 17

Certification required for current position ___ 18
1 = yes
2 = no

Salary differential for certification ___ 19
1 = yes
2 = no

9. Professional organizational activities (list all that apply):

Membership only ___ 20

Active ___ 21

1 = ANA
2 = CNA NP Interest Group
3 = ANA Primary Care Council
4 = California Coalition of NPs
5 = NONPF (National Organization of Nurse Practitioner Faculties)
6 = other (specify) ______________

10. CURRENT POSITION TITLE: ___ 22
1 = nurse practitioner
2 = nurse practitioner educator
3 = other (specify) ______________

11. PRACTICE SETTING: (2 blanks are provided for 2 settings) ___ 23 ___ 24
1 = hospital-based clinic
2 = community-based clinic
3 = private nurse practice
4 = private joint practice
5 = prepaid group practice
6 = school of nursing
7 = other (specify) ______________

12. PRACTICE LOCATION: (2 blanks are provided for 2 locations) ___ 25 ___ 26
1 = inner city
2 = urban
3 = suburban
4 = rural
5 = military
6 = other (specify) ______________

13. TYPICAL CLINICAL DAY:

Number of patients seen in clinic ___ 27
in the hospital ___ 28
on home visit ___ 29

Number of patients contacted by phone ___ 30

Percentage of patients seen in a typical day for whom you seek physician consultation ____ 31

Percentage of the following types of visits for which you see patients on a typical clinical day and average time spent for each:

	%	Min.
new patient	____ 32	____ 33
followup	____ 34	____ 35
other(specify) ____________	____ 36	____ 37

14. PATIENT CHARACTERISTICS:

age range (in years) ____ 38

sex (percent females/males) ____ 39 ____ 40

ethnicity (specify) ____________ percents & type 41

low income (percentage of patients) ____ 42

multiple health problems (percentage of patients) ____ 43

15. METHOD OF PAYMENT:

MediCal (percentage of patients) ____ 44

PrivateInsurance (percentageof patients) ____ 45

Veteran's Benefits (percentage of patients) ____ 46

16. REFERRAL RESOURCES: (check those available at your clinic and indicate the average percent of the time that you use them)

nutritionist ____ 47

social worker ____ 48

nurse specialist (specify type) ____ 49

____

physican (specify specialty)

____________ ____ 50

other (specify) ____________ ____ 51

17. TYPICAL WORK WEEK: (percent time spent in the following activities)

	%
Direct patient care	____ 52
Charting	____ 53
Meetings (specify type) ____________	____ 54
Research (specify type) ____________	____ 55
Continuing ed (specify type) ____________	____ 56
Making referrals	____ 57
Consulting	____ 58
Interpreting lab results	____ 59
Interpreting x-rays	____ 60
Administrative duties (specify type) ____________ ____________	____ 61
Precepting students (specify type) ____________ ____________	____ 62
Teaching patients (specify, eg. formal/informal, individual or group) ____________	____ 63
Supervision, teaching, orienting personnel (specify) ____________	____ 64
Other (specify) ____________	____ 65

18. SIZE OF CASELOAD

Approximatenumber of patients inyourcaseload ____ 66

Briefly describe how patients are assigned to you.

____

____

APPENDIX D

Nurse Pracitioner Consent Form[1]

University of California San Francisco
School of Nursing
Department of Physiological Nursing
And
Department of Family Health Care Nursing

Consent To Be A Research Subject

Purpose:

Karen A. Brykczynski, a nurse practitioner and doctoral candidate in nursing at the University of California San Francisco School of Nursing is conducting a descriptive study of experienced nurse practitioners. The purpose of this study is to describe the clinical practice of nurse practitioners.

Procedures:

If I agree to be a subject in this study, my participation will include: a) two small group discussions of clinical practice situations with two to four nurse practitioners that will be tape recorded and will last about two hours; b) observation of at least three of my client visits; c) individual interview to provide my history as a nurse practitioner and my descriptions of nurse practitioner practice that will be tape recorded and will be about an hour in length; d) completing a structured questionnaire to provide demographic data that will take approximately ten minutes; e) review of selected transcribed narrative accounts, interviews, and field notes for accuracy, clarification of content, and validation of interpretation.

Risks/Disadvantages:

I may experience some loss of privacy through my participation in this study. However, the investigator will keep my name separate from the transcribed text. My name will be coded by number and kept in a locked file so my confidentiality will be protected as much as possible under the law. The tapes will be used for research purposes only and will be erased following completion of the study.

I may find the discussion, interview, or observation disturbing. I am at liberty to refuse to answer any specific question and to request termination of the interview or observation at any time.

My inconvenience in terms of time invested in this study will be minimzed as much as possible by scheduling activities at times of convenience to me.

Benefits:

Although there is no direct benefit to me from participating, I may welcome the opportunity to share thoughts and ideas about clinical experiences with other nurse practitioners.

Questions:

The study has been explained to me. However, if I have any questions about this study or my participation, I may call Karen Brykczynski at (415) 666-4669.

Rights:

I have received a copy of this consent form. My participation in this study is completely voluntary. I have the right to refuse to participate and the right to withdraw from this study without any jeopardy to my person. I just have to say so.

I AM MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS STUDY. MY SIGNATURE INDICATES THAT I HAVE DECIDED TO PARTICIPATE AFTER READING THE INFORMATION PROVIDED ABOVE.

____
Signature of participant, Date

____
Signature of Investigator

APPENDIX E

Nurse Practitioner Consent Form[2]

Information about: Exploring the Clinical Practice of Nurse Practitioners

Experimental Subject's Bill of Rights

Persons who participate in a medical experiment are entitled to certain rights. These rights include but are not limited to: be informed of the nature and purpose of the experiment; be given an explanation of the procedures to be followed in the medical experiment, and any drug or device to be utilized; be given a description of any attendant discomforts and risks reasonably to be expected; be given an explanation of any benefits to the subject reasonably to be expected, if applicable; be given a disclosure of any appropriate alternatives, drugs, or devices that might be advantageous to the subject, their relative risks and benefits; be informed of the avenues of medical treatment, if any, available to the subject after the experiment if complications should arise; be given an opportunity to ask any questions concerning the experiment or the procedures involved; be instructed that consent to participate in the medical experiment may be withdrawn at any time and the subject may discontinue participation without prejudice; be given a copy of the signed and dated consent form; and be given the opportunity to decide to consent or not to consent to a medical experiment without the intervention of any element of force, fraud, deceit, duress, coercion or undue influence on the subject's decision.

Informed Consent

Purpose of Research:

You are invited to participate in a study of the clinical practice of nurse practitioners. Karen A. Brykczynski, a nurse pracitioner and doctoral candidate in nursing at the Univeristy of California San Francisco School of Nursing, the principal investigator, hopes to learn more about how experienced nurse practitioners practice. You were selected as a possible participant in this study because you are a practicing nurse practitioner.

Procedures:

If I agree to be a subject in this study, my participation will include: a) two small group discussions of clinical practice situations with two nurse practitioners that will be tape recorded and will last about two hours; b) observation of at least three of my client visits; c) individual interview to provide my history as a nurse

practitioner and my descriptions of nurse practitioner practice that will be tape recorded and will be about an hour in length; d) completing a structured questionnaire to provide demographic data that will take approximately ten minutes; e) review of selected transcribed narrative accounts, interviews, and field notes for accuracy, clarification of content, and validation of interpretation.

Risks and Benefits:

I may experience some loss of privacy through my participation in this study. However, the investigator will keep my name separate from the transcribed text. My name will be coded by number and kept in a locked file so my confidentiality will be protected as much as possible under the law. The tapes will be used for research purposes only and will be erased following completion of the study.

I may find the discussion, interview, or observation disturbing. I am at liberty to refuse to answer any specific question and to request termination of the interview or observation at any time.

My inconvenience in terms of time invested in this study will be minimzed as much as possible by scheduling activities at times of convenience to me.

Although there is no direct benefit to me from participating, I may welcome the opportunity to share thoughts and ideas about clinical experiences with other nurse practitioners. Upon completion of the study, Karen A. Brykczynski will present the findings and discuss them with the nurse practitioner particpants and other interested nurses. We cannot and do not guarantee or promise that you will receive any benefits from this study.

Freedom To Withdraw Without Prejudice:

My decision whether or not to participate will not prejudice me or my position in any way. If I decide to participate, I am free to withdraw my consent and to discontinue participation at any time without prejudice to me or effect on my practice.

Invitation To Question:

If you have any questions, we expect you to ask. If you have any additional questions later, you may call Karen Brykczynski at (415) 666-4669 and she will be happy to answer them.

Confidentiality Statement:

Any data under the investigator's control will be disclosed in a manner that does not reveal your identity.

<u>Liability Clause</u>:

"In the unlikely event you are injured as a result of participation in this study, the VAMC will furnish (for non-veteran participants) humanitarian emergency care (for veteran participants) medical care as provided by federal statute. Compensation for such injury may be available to you under the provisions of (for non-veteran participants) the Federal Tort Claims Act. (for veteran participants) 38 U.S.C. 351 and/or the Federal Tort Claims Act.

For further information, contact the VA District Counsel at (415) 556-4656.

MY SIGNATURE INDICATES THAT I HAVE READ AND UNDERSTAND THE ABOVE INFORMATION, THAT I HAVE DISCUSSED THIS STUDY WITH THE PRINCIPAL INVESTIGATOR AND THAT I HAVE DECIDED TO PARTICIPATE BASED ON THE INFORMATION PROVIDED. A COPY OF THIS FORM IS AVAILABLE TO ME UPON REQUEST.

Research Subject Date

Witness Date

Investigator Date

APPENDIX F

Patient Consent To Observation Form[1]

University of California San Francisco
School of Nursing
Department of Physiological Nursing
And
Department of Family Health Care Nursing

CONSENT TO OBSERVATION

PURPOSE:

Karen A. Brykczynski, a nurse practitioner and doctoral candidate in nursing at the University of California San Francisco School of Nursing is studying experienced nurse practitioners in practice. Observation of actual client-practitioner encounters is important for her study.

Procedures:

If I agree then she will observe during my visit with the nurse practitioner.

Risks/Disadvantages:

I may experience some loss of privacy in being observed. However, Karen is a nurse practitioner herself and she will make every effort to respect my confidentiality. Any information that is obtained in connection with this project that can be identified with me personally will remain confidential. My anonymity will be safeguarded by assigning me a number. Results will be summarized and reported anonymously.

If I find the observation of my visit with the nurse practitioner to be disturbing at any point, I am free to ask the investigator to leave for any part of my visit or to discontinue observation at any time. My decision regarding observation will not affect my care in any way.

Benefits:

Although there is no direct benefit to me from participating, the investigator hopes to learn more about the clinical practice of nurse practitioners. This knowledge may increase understanding of the nurse practitioner's contribution to health care.

Questions:

The study has been explained to me. If I have any questions about the study or my participation, I may call Karen Brykczynski at (415) 666-4669.

Rights:

I have received a copy of this consent form. My consent to observation is entirely voluntary. I have the right to refuse to participate and the right to withdraw from the

study without any jeopardy to my person. I just have to say so.

I AM MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS STUDY. MY SIGNATURE INDICATES THAT I HAVE DECIDED TO PERMIT OBSERVATION OF MY VISIT WITH THE NURSE PRACTITIONER AFTER READING THE INFORMATION PROVIDED ABOVE.

____
Signature of patient, Date

____
Signature of Investigator

APPENDIX G

Patient Consent To Observation Form[2]

Information About: Exploring the Clinical Practice of Nurse Practitioners

Experimental Subject's Bill of Rights

Persons who participate in a medical experiment are entitled to certain rights. These rights include but are not limited to: be informed of the nature and purpose of the experiment; be given an explanation of the procedures to be followed in the medical experiment, and any drug or device to be utilized; be given a description of any attendant discomforts and risks reasonably to be expected; be given an explanation of any benefits to the subject reasonably to be expected, if applicable; be given a disclosure of any appropriate alternatives, drugs, or devices that might be advantageous to the subject, their relative risks and benefits; be informed of the avenues of medical treatment, if any, available to the subject after the experiment if complications shouldarise; be given an opportunity to ask any questions concerning the experiment or the procedures involved; be instructed that consent to participate in the medical experiment may be withdrawn at any time and the subject may discontinue participation without prejudice; be given a copy of the signed and dated consent form; and be given the opportunity to decide to consent or not to consent to a medical experiment without the intervention of any element of force, fraud, deceit, duress, coercion or undue influence on the subject's decision.

Informed Consent

Purpose of Research:

You are invited to participate in a study of the clinical practice of nurse practitioners. Karen A. Brykczynski, a nurse pracitioner and doctoral candidate in nursing at the Univeristy of California San Francisco School of Nursing, the principal investigator, hopes to learn more about how experienced nurse practitioners practice. You were selected as a possible participant in this study because you seeing a nurse practitioner for your health care.

Procedures:
If I agree to participate then Karen A. Brykczynski will observe during my visit with the nurse practitioner.

Risks and Benefits:

I may experience some loss of privacy in being observed. However, Karen A. Brykczynski is a nurse practitioner herself and she will make every effort to respect my confidentiality. Any information that is obtained in connection with this project that can be identified with me personally will remain confidential. My anonymity will be safeguarded by assigning me a number. Results will be summarized and reported anonymously.

Although there is no direct benefit to me from participating, the investigator hopes to learn more about the clinical practice of nurse practitioners. This knowledge may increase understanding of the nurse practitioner's contribution to health care.We cannot and do not guarantee or promise that you will receive any benefits from this study.

Freedom To Withdraw Without Prejudice:

My decision whether or not to participate will not prejudice me or my medical care. If I decide to participate, I am free to withdraw my consent and to discontinue participation at any time without prejudice to me or effect on my medical care.

Invitation To Question:

If you have any questions, we expect you to ask. If you have any additional questions later, you may call Karen A. Brykczynski at (415) 666-4669 and she will be happy to answer them.

Confidentiality Statement:

Any data under the investigator's control will be disclosed in a manner that does not reveal your identity.

Liability Clause:

"In the unlikely event you are injured as a result of participation in this study, the VAMC will furnish (for non-veteran participants) humanitarian emergency care (for veteran participants) medical care as provided by federal statute. Compensation for such injury may be available to you under the provisions of (for non-veteran participants) the Federal Tort Claims Act. (for veteran participants) 38 U.S.C. 351 and/or the Federal Tort Claims Act.

For further information, contact the VA District Counsel at (415) 556-4656.

MY SIGNATURE INDICATES THAT I HAVE READ AND UNDERSTAND THE ABOVE INFORMATION, THAT I HAVE DISCUSSED THIS STUDY WITH THE PRINCIPAL INVESTIGATOR AND THAT I HAVE DECIDED TO

PARTICIPATE BASED ON THE INFORMATION PROVIDED. A COPY OF THIS FORM IS AVAILABLE TO ME UPON REQUEST.

Research Subject Date

Witness Date

Investigator Date

APPENDIX H

Index of Clinical Situations

NP#	Yrs NP Experience	Interview Situations	Subtotal	Participant Observations	Subtotal	Total
1	11	1, 4, 6, 8 & 9*	5	**	--	5
2	4	2, 3, 5 & 7*	4	**	--	4
3	3	10, 12, 15, 20 & 21	5	1, 2 & 3	3	8
4	4	11, 13, 14, 16, 17, 18, 19 & 22	8	4, 5 & 6	3	11
5	4	23, 24, 27 & 29	4	7, 8 & 9	3	7
6	4	25, 26, 28, 30 & 31	5	10, 11 & 12	3	8
7	4	32, 34, 36, 38 & 39	5	13, 14 & 15	3	8
8	10	33, 35 & 37	3	16, 17 & 18	3	6
9	8	40, 41, 45, 46, 49 50, 52, 53 & 54	9	19 & 20	2	11
10	6	42, 43, 44, 47, 48 & 51	6	21, 22 & 23	3	9
11	10	55, 58, 60, 61 & 63	5	24, 25, 26, 27 28, 29, 30 & 31	8	13
12	7	56, 57, 59 & 62	4	32 & 33	2	6
13	4	64, 65, 66, 68, 69 71, 72, 74 & 75	9	34, 35 & 36	3	12
14	4	67, 70 & 73	3	37, 38 & 39	3	6
15	10	76, 81, 82, 83 & 87	5	40, 41 & 42	3	8
16	3	77, 78, 79, 80, 84 85, 86 & 88	8	43, 44 & 45	3	11
17	10	89, 90, 93, 94, 97 & 98	6	46, 47 & 48	3	9
18	3	91, 92, 95 & 96	4	49, 50 & 51	3	7
19	9	99, 100, 101, 103 104, 105, 109, 111 112, 115 & 116	11	52, 53, 54, 55 & 56	5	16
20	4	102, 106, 107, 108 110, 113, 114 & 117	8	57, 58 & 59	3	11
21	10	119, 120, 121, 123 & 124	5	60, 61 & 62	3	8
22	3	118, 122, 125, 126 127, 128, 129, 130 131, 132 & 133	11	63, 64, 65 & 66	4	15
		Total Interview Situations	133	Total Participant Observations	66	Total 199

Note: * Only one 2 hour interview was conducted with these first 2 participants.

** There were no participant observations of these first 2 participants. They were observed extensively during patient visits in a previous unpublished research study done by the investigator.

APPENDIX I

Guidelines for Interpretive Seminar

For my dissertation, I am doing an ethnography of nurse practitioners. My convenience sample is comprised of nurse practitioners in clinical practice at least halftime for a year or more with clients on a continuing basis in hospital-based ambulatory care clinics. Data collection procedures include: 1) an initial small group interview with two nurse practitioner participants to elicit narrative accounts of clinical situations; 2) participant observation of at least three patient visits for each nurse practitioner; 3) individual interview of nurse practitioners regarding their histories as nurses and nurse practitioners, their beliefs, practices, goals, etc. and any needed clarification following participant observation visits; 4) a final small group interview with two nurse practitioners to collect additional narrative accounts of clinical situations; and 5) a brief demographic questionnaire to determine sample characteristics.

Data analysis is being carried out concurrently with data collection. Narrative accounts of clinical situations, transcribed interviews, and field notes constitute the text that will be systematically analyzed using an interpretive approach. The major task is to describe the characteristic nurse-patient transactions by attending to the intentions, expectations, and explanations offered by the nurse practitioners. Specific questions of interest for this

inquiry include:

1) To what extent do the following six aspects of practical knowledge, identified by Benner (1983), show up in the transcripts and participant observations?

a. graded qualitative distinctions

b. common meanings

c. assumptions, expectations, and sets

d. paradigm cases and personal knowledge

e. maxims

f. changing practices

2) To what extent is the clinical knowledge of nurse practitioners exemplary of the following distinctive aspects of the discipline of nursing?

a. holistic personalized assessment

b. involvement of patient/family in care

c. incorporation of health maintenance and promotion into care along with illness detection and treatment

d. inclusion of teaching, counseling, and supportive interventions in care

To date six participants have completed the entire protocol and six more have just begun. The interview excerpts included here are all from the group discussions of clinical situations. I would appreciate your interpretations regarding:

1) areas of practical knowledge surfacing in the data

2) common themes

3) questions raised by the text

4) any other comments you would like to share

Please feel free to comment directly on the interview text* if you like.

Thank you.

*Clinical situations #1, 10, 24, and 25 comprised the text.

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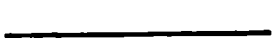

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