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NURSE PRACTITIONERS' PERCEPTIONS AND USE OF NURSING DIAGNOSES

By

Gay R. Kaashoek

A THESIS

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ABSTRACT

NURSE PRACTITIONERS' PERCEPTIONS AND

USE OF NURSING DIAGNOSES

by

Gay R. Kaashoek, B.S., R.N.

The purpose of this study was to investigate the use of nursing diagnoses by nurse practitioners (NPs). Additionally, this study assessed NPs' perceptions of the advantages and challenges to using nursing diagnoses. Data were collected by questionnaires mailed to a randomly selected national sample of 398 NPs.

Of the 249 participants, 48 NPs indicated that they use nursing diagnoses. No significant differences were found between nursing diagnosis use and selected demographic characteristics or educational preparation. However, the use of nursing diagnoses was significantly higher among participants who were expected to use them as NP students ($X^2 = 22.012$; p = .000) or in practice settings as NPs ($X^2 = 36.657$; p = .000).

The ability to foster client-centered care and promote nursing care that meets standards of practice were cited as the most significant advantages to using nursing diagnoses. Lack of reimbursement and lack of clarity of nursing diagnosis language were reported as the most significant challenges. The challenges to using nursing diagnoses must be addressed if they are to be the language that NPs use to define and describe their practice.

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CHAPTER 1

INTRODUCTION

Although the role of the nurse practitioner (NP) in the health care system of the future may be well established, it is unlikely to be static. A number of historical as well as contemporary factors continue to influence and shape the practice of NPs as advanced practice registered nurses. According to the American Nurses Association (ANA) (1996), the mission of advanced practice registered nursing is "to provide expert, quality, comprehensive nursing care to clients" (p. 1). In addition, the ANA and the American Academy of Nurse Practitioners (AANP) (1998) ascribe NPs with a high degree of autonomy and accountability for health care outcomes, maintenance of professional standards, and advancement of the role. The standards for advanced practice registered nursing are derived from the ANA Scope and Standards of Advanced Practice Registered Nursing (1996) as well as the ANA Standards of Clinical Nursing Practice (1991) which serves as the framework for basic nursing practice.

When Loretta Ford, PhD, RN and Henry Silver, MD first investigated the NP role in 1965, their intent was to "determine the safety, efficacy, and quality of a new mode of nursing practice designed to improve health care to children and families and to develop a new nursing role--that of the pediatric nurse practitioner" (Ford, as cited in Hawkins & Thibodeau, 1996, p. 19). Although nursing leaders did not support the idea initially, nurse practitioner programs were established and enrollments rose quickly. In 1971, the

Department of Health, Education, and Welfare recommended that the scope of nursing practice be expanded to include primary care (Stanford, 1987). The ANA recognized the NP role in 1974, and established guidelines for the continuing education of nurses to assume the role.

During the 1970s and 1980s, a number of studies demonstrated the positive impact of NPs on access to care, client satisfaction, and numerous aspects of quality of care (American Nurses Association, 1983; Billingsley, 1986; Jacox, 1987; Powers, Jalowiec, & Reichelt, 1984; Ramsay, McKenzie, & Fish, 1982). Comparisons of NP with physician services led to the perception that nurse practitioners were, within their scope of practice, an alternate provider of medical care. However, advanced practice registered nursing is neither an extension, substitution, nor replication of medical care.

Nurse practitioners are licensed and certified as nurses who provide primary care to clients. Standards of advanced practice registered nursing include the promotion of an interdisciplinary care process and consultation. Both of these competencies imply that NPs practice from a unique professional framework, that they offer a perspective and a service that is different, but complementary to medicine, social services, and other health care services. One way the unique services of nurse practitioners are recognized is through the documentation of the problems they identify and treat. This includes the identification of nursing diagnoses. However, a number of authors have voiced concerns about the clarity and visibility of nursing practice in the NP role, including the use of nursing diagnoses (Carlson-Catalano, 1998; Carlson-Catalano & Judge, 1998; Edmunds, 1984; Leuner & Chase, 1996; Martin, 1995).

Historically speaking, much of the exploration and development of the concept of nursing diagnosis paralleled the development of the NP role. The first North American Nursing Diagnosis Association (NANDA) conference did not convene until 1973. For this reason, it is likely that early nurse practitioners learned and used medical diagnoses from their physician preceptors before they learned nursing diagnosis. The accepted NANDA definition of nursing diagnosis is "a clinical judgment about individual, family, or community responses to actual or potential health problems/life processes. Nursing diagnoses provide the basis for selection of nursing interventions to achieve outcomes for which the nurse is accountable" (Carroll-Johnson, 1993, p. 306).

Certainly, the scope of practice of the nurse practitioner is defined by more than the use of nursing diagnosis. However, if nurse practitioners, as Mundinger (1980) cautions, do not understand autonomous nursing practice before attempting to provide primary care services, "primary care nursing becomes enhancement of medical care at best, and second class medical care at worst" (p. 110). It is important that nurse practitioners are able to communicate to one another, to the community, and to consulting professionals, their scope of practice and the unique service they offer including the identification of nursing diagnoses. Therefore, this study examined the use of nursing diagnoses by nurse practitioners.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

Conceptual Framework

The perspective of Imogene M. King's (1981) conceptual framework of nursing was used to explore factors that may influence the use of nursing diagnoses by NPs. Anchored in systems theory, King's framework interprets human behavior and decision-making in light of human interactions with the environment, other individuals, and society.

King's (1981) framework is based on three interacting systems: personal, interpersonal, and social. A supporting assumption is that human beings are open systems who interact with the environment. As such, promotion of health using the nursing process is understood within the context of nurse and client as distinct but interacting systems. Pertinent to this study, the practice of nurse practitioners, and in particular their use of nursing diagnoses, was explored as the result of interplay between these systems.

King (1981) defines personal system as "a unified, complex whole self who perceives, thinks, desires, imagines, decides, identifies goals and selects means to achieve them" (p. 27). Personal identity is a function of this system but its development is the result of interaction with other open systems. Development of the personal system is significantly influenced by perception. King (1981) defines perception as "a process of organizing, interpreting, and transforming information from sense data and memory. It is a

process of human transactions with environment. It gives meaning to one's experience, represents one's image of reality, and influences one's behavior" (p. 24). Perception of one's role also influences behavior. On the other hand, perception is influenced by past experiences, self-concept, biological composition, educational background, and socioeconomic status. Based on these concepts, the decision-making and actions of NPs can be understood, in part, in terms of past experiences, personal perceptions, education, and influence of the health care environment.

The interpersonal system is another component of King's (1981) conceptual framework. Two or more humans in interaction make up an interpersonal system. Human interaction is shaped by the needs, perceptions, past experiences, level of stress, and goals of the individuals engaged in it. The interaction process is composed of both communication and transaction where transaction includes meaningful, goal-driven behavior. Human transaction, as described by Ittleson and Cantril, implies that each person's identity is affected by the interaction (as cited in King, 1981). In transaction, there is an exchange of values that influences the individuals involved.

The third system in King's (1981) conceptual framework is the social system. Like the personal and interpersonal systems, it also influences individual behavior, beliefs and values. King defines the social system as "an organized boundary system of social roles, behaviors, and practices developed to maintain values and the mechanisms to regulate the practices and rules" (p. 115). Acceptable societal behavior is learned from systems such as family, community, church, and school. Social systems are characterized by values, prescribed roles, status, organization, and authority. For the nurse practitioner, the health

care system, with its accompanying regulatory agencies and numerous nursing organizations, including the ANA, are social systems that impact practice.

Besides its philosophical and political influence, the ANA (1996) also prescribes standards of practice for nurse practitioners. Such standards authorize the nature of services expected from NPs by the public, as well as other health care providers. In addition, the healthcare system and third-party payers are other groups that may influence the practice of NPs by their degree of administrative support of the NP role, formal and informal recognition of particular practices, and determination of criteria for reimbursement. Therefore, social systems interacting with personal and interpersonal systems can be understood to influence the nurse practitioner's decision to use nursing diagnoses.

King's (1981) development of the concept of role is also pertinent to this study. As King clarifies, "role" is relevant to all systems of the conceptual framework. Throughout life, individuals hold multiple roles and learn to function in them through experience in different social systems. Specific role behavior is, in part, a function of one's self-concept, which includes personal system attributes such as perceptions, needs, and goals. Specific role behavior also varies with the unique situation or interaction one is in at the moment. For example, nurses may develop initial perceptions of the NP role by observing NPs in practice or by reading about the role. Understanding of the role may be enhanced in an NP education program. Later, in an employment setting, specific role expectations may be further defined in a formal or informal manner. One would anticipate that individual NPs could perceive their roles differently based on unique past experiences, education, self-

concept, and the influence of values and practices of other NPs. Perception of their roles could also be affected by interactions with other health care professionals, the organization they work in, and their clients. In a similar manner, NPs' decision to use or not to use nursing diagnoses may be affected by these factors.

Review of Literature

Although the role of the NP, scope of practice, and educational preparation have evolved over time, studies have consistently shown that NPs provide quality care and a high degree of patient satisfaction.

Scope of practice. The scope of practice of the nurse practitioner is defined in part by the ANA, the AANP, and other advanced practice specialty groups. The ANA (1996) describes the role of the nurse practitioner in the following manner:

> The nurse practitioner is a skilled health care provider who utilizes critical judgment in the performance of comprehensive health assessments, differential diagnosis, and the prescribing of pharmacologic and non-pharmacologic treatments in the direct management of acute and chronic illness and disease. Nurse practitioner practice promotes wellness and prevents illness and injury. (p. 4).

While the role of the NP includes patient advocacy and interdisciplinary consultation and collaboration, it may extend to the role of educator, leader, researcher, consultant, and mentor. The nurse practitioner is also accountable to the ANA Standards of Clinical Nursing Practice (1991) upon which the Standards of Advanced Practice Registered Nursing (1996) are built.

The scope of practice of the nurse practitioner is also defined by each state where differences exist, for example, in the requirement for physician collaboration or supervision (Pastorino, 1998). In 26 states, there is no requirement for physician collaboration or supervision in practice and the authority for scope of practice rests with the state Board of Nursing, whereas in 16 states, NP practice requires physician collaboration or supervision. In another six states, authority for the scope of practice is shared by the Board of Nursing and the Board of Medicine. State law also defines NP prescriptive authority which can vary from complete independence in prescribing medications including controlled substances (17 states) to no prescriptive authority (two states) (Pastorino, 1998).

Education and certification. Educational preparation of nurses for the NP role has evolved over the past 35 years. In the 1960s, education was provided through certificate programs that were reportedly based on a medical model using physician faculty and preceptors. The NP role was shown to be effective early in its history, prompting the ANA to establish curriculum guidelines, practice standards, and certification programs (Hawkins & Thibodeau, 1996). It was not until 1992 that the ANA required a master's degree to take the NP certification exam (Romaine-Davis, 1997). At this time, the requirement to hold a master's degree or be certified to practice as a nurse practitioner varies from state to state. The effects of historical changes in the educational preparation of NPs are evident in the following studies.

Sulz, Henry, Bullough, Maslach-Buck, and Kinyon (1983) compared the number of nurse practitioner students enrolled in certificate versus master's programs across the

United States in 1973 and in 1980. In 1973, 72.1% of 1,101 students surveyed were enrolled in a certificate program while 27.9% were enrolled in a master's program. By 1980, 45% of 1,579 students were enrolled in a certificate program, and 55.0% in a master's program. Federal funding of certificate programs until the early 1980s contributed, in part, to these demographics (Price et al., 1992).

Educational preparation was examined by Ward (1979) in a study of 327 Family Nurse Practitioners from throughout the United States. Specific preparation for the FNP role included no formal preparation (10.1%), master's level education (7.3%), and continuing education program preparation (82.6%). More recently, Thibodeau and Hawkins (1994) surveyed NPs (n = 480) representing the ten U.S. Public Health Service regions and found that 50.21% were prepared as NPs at the master's level, 45.83% completed a certificate program, and 2.71% received on-the-job training.

The National Organization of Nurse Practitioner Faculty, the AANP, and the American Association of Colleges of Nursing have published guidelines and recommendations regarding the education of advanced practice nurses. Although such declarations will promote consistency in the competencies of future NP graduates, it is clear from the data presented above that the current NP work force reflects 25 to 30 years of evolving change in educational preparation for the role.

Effectiveness and outcomes. Numerous researchers have investigated the quality and effectiveness of the nurse practitioner role. Very early, Spitzer et al. (1974) conducted a large randomized study that compared quality of care and patient satisfaction between NP and physician services. The nurse practitioners in this study were RNs who attended a

program specially designed by schools of nursing and medicine in Ontario, Canada. Upon graduation, they were considered "co-practitioners" (p. 252) with the physicians, capable of making independent evaluation and treatment decisions. Eligible families (n = 1598) were randomly assigned to either the nurse practitioner group or the physician group. The baseline health status of the two groups of patients was not significantly different (p = 0.05). Quality of care was measured by assessing how providers managed 10 indicator conditions and how they prescribed 13 common drugs during the year-long study. The NPs and physicians were unaware of the conditions and drugs being targeted. At the end of the study, patients were asked to report on their health status and social and emotional functioning. Management of the 10 indicator conditions in the two groups of patients was not significantly different (p = 0.05) with physicians rating adequately in 66% of episodes and NPs rating adequately in 69%. Similarly, there was no statistically significant difference between the two groups in adequacy of prescription of the 13 targeted drugs. Ultimately, 97% of the patients in the physician group and 96% in the NP group were satisfied with the health care they received.

During the first eight weeks of the study (Spitzer et al., 1974), physicians were involved in 45% of NP patient visits. This dropped to 33% during the last eight weeks. The researchers did not describe the nature of the physicians' involvement, for example whether the NPs were consulting with them privately or if physicians were also examining the patients. All of the families in the study were established patients in the practice and presumably familiar to the physicians. Therefore, it is unclear what effect the involvement of the physicians had on patient satisfaction data credited to the NP group. Spitzer et al.

did not report patients' perceptions of the new NP role or comments about the relationship of the NP and the physician.

Other important findings were reported by the Congressional Office of Technology Assessment (OTA) (Jacox, 1987). In response to a request of the Senate Committee on Appropriations, OTA evaluated the use of NP and nurse midwife services by federal and private health care plans. Their conclusions were based on an extensive review of the literature and documents citing the quality of care, patient satisfaction, access to and cost of services provided by NPs, certified nurse midwives (CNMs), and physicians' assistants (PAs).

A significant recommendation of the OTA (as cited in Jacox, 1987) was the following:

> Given that the quality of care provided by NPs, PAs, and CNMs within their areas of competence is equivalent to the quality of comparable services provided by physicians, using NPs, PAs, and CNMs rather than physicians to provide certain services would appear to be cost-effective from a societal perspective (p. 263).

The OTA investigation found that the overall quality of care provided by NPs was similar to that provided by physicians. However, most studies indicated that patients were more satisfied with NPs than with physicians, particularly due to "the personal interest exhibited, reduction in the professional mystique of health care delivery, amount of information conveyed, and cost of care" (p. 263). Physicians scored higher in managing problems that required technical care.

The Office of Technology Assessment (OTA) (Jacox, 1987) found that NPs and PAs could provide an estimated 50% to 90% of the services traditionally provided by MDs. Nurse practitioner services specifically were noted to improve access to primary care in areas receiving limited health care, despite legislation and regulations requiring association with a medical practice. Populations cared for by NPs included elderly persons in nursing homes, inmates, children with chronic illnesses, people without health insurance or financially impoverished, and those in rural settings. The OTA noted that NPs provided health care and also addressed social and psychological problems.

To date, only one study (Mundinger et al., 2000) has compared the outcomes of patients treated by NPs to those treated by physicians. The study specifically evaluated patients' overall satisfaction with their care, physiologic outcomes in those with hypertension, asthma, or diabetes, utilization of other health care services, and perception of provider attributes and communication. Of the 1,981 patients who were randomized and blindly assigned to either a nurse practitioner- or physician-staffed clinic, 1,316 kept their initial appointment and were enrolled in the study. Care was provided at community-based clinics associated with the Columbia Presbyterian Medical Center in New York City. Appointments with physicians and NPs were of similar length. In addition, physicians and NPs in this study possessed equivalent authority to prescribe medications, consult, refer, and admit patients.

Mundinger et al. (2000) found no statistically significant difference in satisfaction with NP services compared with physician services after the patients' first visit. After the 6-month visit, there were no statistically significant differences in

satisfaction except in "provider attributes" (p. 64). As a measure of technical skill, personal manner, and time spent with the patient, the authors considered the small difference in this parameter to be of unlikely clinical significance.

Besides satisfaction, there were no statistically significant differences between the two groups in self-reported change in health status, in peak flow measurements in patients with asthma, in glycosylated hemoglobin in patients with diabetes, or in systolic blood pressure in patients with hypertension. Yet diastolic blood pressure was significantly lower in patients being cared for by NPs. Mundinger et al. (2000) found no statistically significant differences between the physician and NP patients in their use of emergency, specialty, primary care, or hospital services.

Ramsay, McKenzie, and Fish (1982) compared outcomes and appointment compliance of patients treated at a physician-staffed hypertension clinic to those treated at a newly established nurse practitioner-staffed clinic in Canada. The study included 80 newly enrolled patients, 40 nonrandomly selected from the physician clinic and 40 randomly selected from the NP clinic. The participants were similar in age, gender, employment status, initial blood pressure (BP), and initial weight. The researchers measured the percentage of appointments kept, weight, and resting BP at the initial visit and again at six, 12, and 15 months. They found no statistically significant difference in the percentage of hypertension appointments kept by patients in the nurse-staffed (68.5%) versus the physician-staffed (67.7%) clinics. Blood pressures followed by the NPs were lower at all follow-up visits and significantly so at the 12-month visit (Irwin-Fisher test, $p < .05$). In addition, patients in the NP clinic lost significantly more weight ($M = 2.67$ Kg

lost) at 15 months compared with those in the physician clinic (M = 1.2 Kg gained) (repeated measures ANOVA; $F(1, 31) = 4.31$; $p < .05$). This occurred despite the fact that physicians referred obese patients to hospital dieticians significantly more frequently than the nurses (Irwin-Fisher test, $Z = 2.64$; $p < .05$).

Although the findings of this study cannot be generalized due to its small sample size, it does present noteworthy findings including a significantly lower BP at 12 months as well as significantly more weight loss for patients in the NP clinic. Ramsay et al. (1982) did not compare the length of appointments allotted for the two groups, nor if the nurse practitioners scheduled more follow-up visits with their patients. Both of these factors could influence patient motivation to reduce weight and continue medication. Since the NP role was relatively new at the time of this study, the authors questioned the impact of the NPs' desire to be successful and to demonstrate their competency on the outcomes of their patients. However, every new patient (n = 40) admitted to the physician-staffed clinic was included in the study. Knowing this may have similarly influenced the physicians' practice.

Nursing diagnosis. Organized efforts to develop the concept of nursing diagnosis began in 1973 when the first NANDA conference was convened. However, it was not until 1990 that a definition of nursing diagnosis was accepted (Mills, 1991). Even though the use of nursing diagnoses continues to grow nationally and internationally, confusion about diagnostic language and disparity in its use by nurses, including NPs, still exists.

In contrast to nursing diagnosis, the traditional definition of "diagnosis" relates to the identification of disease. Dorland's Illustrated Medical Dictionary (2000) defines

diagnosis as "1. the determination of the nature of a case of disease. 2 the art of distinguishing one disease from another" (p. 490). De Gowin (1994) similarly states, "The name of the patient's disease is *the diagnosis*" (p. 1). The scope of practice of NPs includes the diagnosis and treatment of actual or potential health problems as well as the promotion of wellness (ANA, 1996).

Very few studies have examined the use of nursing diagnoses by NPs. Martin (1995) surveyed NPs in Idaho, Washington, and Oregon to determine if they were using nursing diagnoses in their practices. In addition, their perceptions of the advantages and barriers to using nursing diagnoses were assessed. To achieve adequate sample size and representation from each state, Martin used a stratified random sampling technique. This resulted in a sample of 658, or 33% of the total 1,973 licensed NPs. Data were collected using a self-administered questionnaire that was piloted with 10 NPs. In its final form, the survey included biographical information, forced choice questions concerning knowledge of nursing diagnoses, and open-ended questions to assess perceived advantages and barriers to the use of nursing diagnoses. Of the 230 surveys returned, 181 were usable.

Martin (1995) found that 49.2% of respondents were prepared at the master's level, while 50.2% completed a non-master's NP program. When asked if they had received any formal education about nursing diagnosis, 45.3% indicated they had and 54.6% had not. Fifteen percent (n = 31) of the NPs reported using nursing diagnoses in their practices. However when asked to write examples of their most frequently used nursing diagnoses, three wrote medical diagnoses. Martin concluded that very likely only 28 NPs used nursing diagnoses in their practice. There were no significant differences

found between knowledge or use of nursing diagnoses and educational preparation, practice specialty, years of practice as a nurse practitioner, and practice setting.

The NPs who used nursing diagnoses identified the following barriers to writing them: (a) "lack of time", (b) "lack of clarity of diagnostic statements", and (c) "lack of administrative support (both nursing and medical) for writing nursing diagnoses" (Martin, 1995, p. 12). Frequently reported advantages of using nursing diagnoses included enhanced utilization of the nursing process, promotion of care that meets standards of practice, enhanced holistic client-centered care, and definition of scope and realm of nursing practice.

Martin (1995) asked NPs who did not use nursing diagnoses to identify anticipated barriers to their use. In response, NPs reported that nursing diagnostic statements (a) lacked clarity and conciseness; (b) were not accepted, recognized, valued or supported by others; (c) were not reimbursable, and (d) were not applicable to their current practice. Many also indicated they did not have time to write nursing diagnoses. Nurse practitioners rated the barriers as moderate to severe. In addition, "by their responses, 17 NPs clearly indicated resistance and antipathy to the concept of nursing diagnoses. They stated a preference for writing medical diagnoses" (Martin, 1995, p. 13).

The findings of this study revealed that some NPs lack confidence in using nursing diagnoses. For a few, there was an apparent lack of discrimination between medical and nursing diagnoses. Others perceived nursing diagnoses to be of little value clinically and financially. However, respondents in both groups (NPs who did and did not use nursing diagnoses) identified similar barriers of lack of time, lack of diagnostic clarity, and lack of

administrative support. Such perceived barriers cannot be ignored for nursing diagnoses to achieve widespread acceptance and adoption among NPs.

In another study, Leuner and Chase (1996) examined a number of advanced practice issues including NPs' use of nursing diagnoses. The survey questionnaire, pilot tested with 15 NPs, was composed of open-ended questions. The Nurse Practitioner Associates for Continuing Education (NPACE) provided a list of 390 randomly selected NPs, representing 44 states, to the researchers. One hundred thirty-eight (138) NPs from 36 states returned surveys. Mean years of practice as a NP was 18. In terms of educational preparation, 59% of the participants reported they completed a master's level NP program, while others completed a certificate program (31%) or a post-master's degree program (10%).

Sixty four percent of the NPs reported they did not use nursing diagnoses. Similar to Martin's (1995) study, some NPs articulated strong sentiment about the use of nursing diagnoses in a primary care setting. Reasons given for not using them included: (a) only medical diagnoses were used for coding; (b) protocols did not list nursing diagnoses; (c) preceptors did not use them; (d) nursing diagnosis was not included in NP education program; (e) lack of knowledge about nursing diagnoses; and (f) numerous conceptual problems. Respondents indicated that physicians do not understand nursing diagnoses. They also felt that nursing diagnoses were too wordy, too general, and of little benefit to multidisciplinary communication and coordination of care. The most common nursing diagnoses identified by the 13 NPs (9%) who reported using them were knowledge deficit, ineffective coping, pain, fatigue, and health maintenance alteration.

One of the questions asked by Leuner and Chase (1996) was, "Do other members of the team recognize your unique contribution as a nurse?" (p. 310). Eighty-seven percent (n = 108) of the participants answered positively. Twenty indicated that they were recognized for their communication and education skills. Others reported that patients with complex needs were often referred to them, especially those with emotional, lifestyle, family-related, or compliance problems. A few felt they were regarded for their administrative, consultative, or coordination skills. Nine participants felt their unique contributions were not recognized, citing reasons such as being the only person in the setting and working in a practice where only the bottom line mattered (p. 310).

Summary

Research has consistently demonstrated the effectiveness of NPs as primary health care providers in terms of patient satisfaction, quality of care, access to care, and health care outcomes. In most of these studies, NPs have been compared with physicians or PAs with a similar scope of service. There is no known comprehensive research evaluating NPs against advanced practice nursing standards.

A few studies have investigated NPs' use of nursing diagnoses with consistent evidence that the majority of NPs do not employ them. This finding is not completely surprising since early NP students were educated using a primarily medical model. In addition, the concept of nursing diagnosis paralleled the development of the NP role. Nursing diagnosis research, education, and use is still evolving. Understanding the issues regarding the lack of use of nursing diagnoses is important if their application is truly germane to the practice and documentation of NPs.

Nurse practitioners have identified conceptual problems with nursing diagnoses as well as a lack of comfort and expertise in using them. Interested in a practice-relevant taxonomy, Burns (1991, 1992) developed an assessment tool and diagnostic classification system specifically for pediatric nurse practitioners (PNPs). Her work addresses some of the concerns that PNPs "need a classification system that includes nursing, disease, and developmental diagnoses" (Burns, 1991, p. 94). It may be helpful for nursing leaders to examine the relevancy of nursing diagnoses, as they are currently classified, for advanced practice nursing.

Lack of comfort and expertise in using nursing diagnoses can be interpreted as an educational problem or a lack of role-modeling. From the perspective of King's (1981) conceptual framework, development of the NP role occurs through formal education, relationships with mentors, preceptors, and colleagues in the work environment, and organizational and professional social systems. These factors will affect, in part, the NP's perception that nursing diagnoses are important. The impact of a medical-model philosophy on NP role development has already been called into question, but not studied, by nurses who voice concerns that NPs may be mimicking medical care rather than providing advanced practice nursing care (Brush & Capezuti, 1997; Edmunds, 1984; Hawkins & Thibodeau, 1996; Mundinger, 1980). No studies have evaluated whether past successful experiences in nursing diagnosis affects its use in the NP role. It is also not known if NP students who work with NP preceptors differ in their use of nursing diagnoses from those who work with non-nurse practitioner preceptors.

In this regard, the purpose of this study was to investigate the use of nursing diagnosis by NPs. Two research questions were explored. First, does the use of nursing diagnoses by NPs vary with respect to type of NP educational preparation, type of clinical preceptor, years of nursing and NP experience, and past use of nursing diagnoses? Second, what are the perceived advantages and barriers to the use of nursing diagnoses?

CHAPTER 3

METHODS

Design

This non-experimental, descriptive study utilized a standardized questionnaire to collect data from a sample of NPs concerning their use of nursing diagnoses. Participants were asked to furnish biographical data, as well as answers to specific questions regarding their educational preparation and the type of NP preceptor used in their academic clinical courses. In addition, years of practice, experience in the use of nursing diagnoses, and perception of nursing diagnoses as a component of NP practice were investigated.

Sample

The accessible population for this study included all NPs. The American Academy of Nurse Practitioners (AANP) maintains a database of over 10,100 NPs who are active members of AANP. Access to this database is available for use in research for a nominal fee following the satisfactory completion of the AANP approval process. Investigators are required to submit copies of their research abstract, participant study materials, and a curriculum vitae.

The AANP database is organized by 11 regions representing two to six states each and includes NPs in all specialties. The investigator requested a mailing list of 400 NPs which was derived using computer-generated random sampling from the AANP database.

Inasmuch as typical response rates of mailed surveys are very low (Polit & Hungler, 1998), it was hoped that a sample size of 400 would maximize generalizability of the findings. Respondents were included in the study if they were currently seeing clients in a clinical setting in the United States.

Of the 400 names received from the AANP, all but two resided in the United States. They were excluded from the study due to uncertainty about differences in the role and practice expectations of NPs living outside the United States. As a result, questionnaires were sent to 398 NPs. A total of 268 (67.3%) questionnaires were returned to the investigator. Fourteen were unusable because the respondents were not seeing clients in a clinical setting, four were returned due to incorrect mailing addresses, and one was received after the close of the data collection period. The final sample size was 249, producing a response rate of 62.5%.

Participants ranged in age from 27 to 67 years, with an average age of 44 years ($M = 43.98$; $SD = 7.59$). More than 97% of the participants held a master's degree in nursing ($n = 242$). The remaining participants reported having a diploma ($n = 1$), a baccalaureate ($n = 3$), and a doctoral ($n = 1$) degree in nursing.

The number of years of practice as a registered nurse (RN) ranged from three to 46, with a mean of 19.20 years ($SD = 8.16$). Seven participants had been in practice less than five years (2.8%), while another 2% ($n = 5$) had been RNs for 40 to 46 years. Although the majority of participants had been RNs for an extended period of time, the average number of years in practice as NPs was 5.9 ($SD = 5.4$). Of the 249 participants, 64.5% had only been practicing as NPs for five years or less ($n = 160$), with only two

having less than one year of NP experience. One individual reported being a NP for 33 years.

Study participants were asked to identify all of their practice specialties. The most frequently reported specialty was family practice (n = 150, 60.2%). Forty-seven participants were practicing in acute care and related areas such as emergency, surgery, and neonatal. In contrast, 143 NPs identified specialties in practices based on clients' developmental stage or age, including adult, geriatric, adolescent, pediatric, women, family planning, school, college, and nurse midwifery. Table 1 displays a summary of the specialties reported by NPs in the study.

In addition to specialty practice, participants were also asked regarding the setting of their practice. The most common location identified was physician's office (n = 106, 42.6%). Eighty-four NPs (33.7%) identified other primary care settings such as independent private practice, rural clinics, student health, health departments and community clinics, whereas 47 (18.9%) reported practicing in acute care, emergency, urgent care, or outpatient surgery settings.

According to the data, the participants reported seeing an average of 17 clients per day (SD = 8.4). However, 32 participants reported seeing only one to 10 clients, while six indicated that they managed 40 to 60 clients each day. This variation in the number of clients treated per day was attributed to two factors. Some NPs commented that they worked in different settings throughout the week which affected the number of clients they saw per day. Others stated that they did not work full days every day, therefore limiting the average number of clients seen per day.

Table 1

Nurse Practitioner Practice Specialty

Specialty	n	(%)
Family	150	(60.2)
Adult	60	(24.1)
Geriatrics	27	(10.8)
Acute care	25	(10.0)
Women's health	24	(9.6)
Emergency	17	(6.8)
Mental health	13	(5.2)
Occupational health	13	(5.2)
Pediatrics	12	(4.8)
College health	9	(3.6)
Family planning	7	(2.8)
Oncology	4	(1.6)
Nurse midwife	2	(1.8)
Neonatal	2	(1.8)
School	1	(.4)
Other	35	(14.1)

The NPs in this study practiced in all but one of the 50 United States and District of Columbia. More than 25% of the participants (n = 62) practiced in the northern to mid-Atlantic states (regions 2 and 3), with another 13.9% (n = 34) based in four southern states (region 11). Only 13.2% (n = 32) of the participants practiced in the states on the Pacific coast, the Rocky Mountains, the mid-plains, and Alaska and Hawaii (regions 8, 9, 10). Five participants did not provide this information. A summary of the distribution of NPs' practices by region is shown in Table 2.

Instrument

The tool used for this study was a self-report questionnaire modeled after Martin's (1995) "Nurse Practitioner Knowledge and Use of Nursing Diagnosis Questionnaire" (Appendix A). Martin's questionnaire was designed to determine if NPs were using nursing diagnoses and to assess their perceptions of the advantages and barriers of using them. Content of the tool was reviewed and evaluated by 10 NPs attending a nursing conference. In the original questionnaire, a case study was included to assess participants' knowledge of nursing diagnoses. However, evaluators found it to be "too cumbersome" and at risk for introducing "nonrespondent bias" (Martin, p. 12). As a result, Martin deleted the case study and asked respondents to list the nursing diagnoses used most frequently in their practice instead. Permission to use and modify the tool for this study was granted by the author (Appendix B).

Table 2

Location of Practice by Region (n = 244)

Region	States within region	Participants n (%)
1	Connecticut, Massuchusetts, Maine, New Hampshire, Rhode Island, Vermont	21 (8.6)
2	New Jersey, New York	20 (8.2)
3	Washington DC, Delaware, Maryland, Pennsylvania, Virginia, West Virginia	42 (17.2)
4	Kentucky, North Carolina, South Carolina, Tennessee	23 (9.4)
5	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	25 (10.2)
6	Arkansas, Louisiana, New Mexico, Oklahoma, Texas	27 (10.8)
7	Iowa, Kansas, Missouri, Nebraska	20 (8.2)
8	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	6 (2.5)
9	Arizona, California, Nevada, Hawaii	16 (6.6)
10	Alaska, Idaho, Oregon, Washington	10 (4.1)
11	Alabama, Florida, Georgia, Mississippi	34 (13.9)

The instrument used in this study included demographic information and questions about NPs' use of nursing diagnoses, similar to Martin's (1995) survey. Because this study was also concerned with the influence of role and the interpersonal and social systems on

NPs' use of nursing diagnoses, two questions that address these concepts were added. They included identification of type of NP education clinical preceptor (NP, physician, or other) and past roles where the use of nursing diagnoses was expected. The complete instrument was composed of 18 questions.

Whereas Martin (1995) asked study participants to identify perceived advantages of nursing diagnoses using an open-ended format, that question was modified in this study to include a pre-determined list of four advantages based on those reported in Martin's study. Participants were asked to select perceived advantages and rate their significance using the 5-point Likert scale. Furthermore, they could list additional advantages of their own choosing and rate them. This format change was implemented to improve the ease of responding to the question and to assess the usefulness of the advantages identified by participants in Martin's study.

To promote more neutral language, the term "barrier" was changed in this study to "challenge". For consistency, all participants in the study were asked to rate the challenges to using nursing diagnoses from the same list of pre-determined challenges. This is a modification from Martin's tool which asked participants who did not use nursing diagnoses to identify barriers using an open-ended question; those who did use nursing diagnoses were given a list of five barriers to choose from as well as the option to identify others.

Internal consistency of two components of the instrument was determined from actual study data using a reliability analysis (alpha). A reliability analysis of the selection and rating of eight potential challenges to the use of nursing diagnoses produced a

Crombach's alpha (α) of .87. In addition, a reliability analysis of the selection and rating of four potential advantages to the use of nursing diagnoses produced a Crombach's alpha (α) of .88. According to Polit and Hungler (1998), a coefficient of .70 or greater is sufficient for making group comparisons.

Procedure

The investigator sent questionnaires to NPs at the addresses reported on the AANP computer-generated mailing list. Each NP received a cover letter (Appendix C), the study questionnaire, and a postage-paid return envelope. The cover letter invited recipients to participate in the study by answering the questionnaire and returning it by the due date in the postage-paid envelope provided. Respondents were given approximately four weeks from receipt of the questionnaire to complete and return it to the investigator.

Through the cover letter, participants were informed of the purpose of the study, the selection process, the voluntary nature of the study, associated risks, the commitment to confidentiality, and persons to contact with questions regarding the study. Because the questionnaire did not request personal identification and since there was no reason for investigator-participant interaction, anonymity could be assured. Participants were invited to request a copy of the results of the study by sending the investigator a separate request.

Human Subjects Considerations

Prior to conducting this study, permission was obtained from the Grand Valley State University (GVSU) Human Subjects Review Committee. A cover letter explained to respondents that participation in the study was voluntary. There were no anticipated risks to participants in completing and returning the questionnaire. The participants were

informed of the potential benefits of the study that included improvement in our understanding of the use of nursing diagnoses by NPs. In addition, the study would provide insight for NPs and other nursing leaders into factors that influence NPs' use of nursing diagnoses.

Every effort to protect the confidentiality and anonymity of the participants was used. Respondents were not asked to identify themselves on the questionnaires. In addition, review of the questionnaires was limited to thesis committee members and the results were analyzed as a group. Participants who were interested in the results of the study were asked to send their names and addresses in a separate mailing from the questionnaire to protect their anonymity.

The cover letter also stated that voluntary completion and return of the questionnaire indicated understanding of the study and permission to be included in it. Recipients were given names and telephone numbers of the investigator, thesis chairperson, and chairperson of the GVSU Human Research Review Committee to contact if they had questions about the study or the questionnaire.

Threats to Validity

A major threat to the internal validity of this study was response bias due to self-selection. Nurse practitioners who were interested in nursing diagnoses may have been motivated to return the questionnaire, whereas those with little experience or a negative past experience in using nursing diagnoses may have been less inclined to participate in the study. To minimize threats to internal validity, several strategies were employed.

The same cover letter and questionnaire was sent to all NPs in the targeted sample. This provided a consistent introduction to the study, eliminating the variability and biases that could occur with investigator-participant interaction. Hopefully, the relatively short questionnaire, assurance of anonymity, condition of investigator-as-student, and voluntary nature of the study would increase the number of candid responses and offset the tendency to not respond. This was particularly important given some of the strongly reactive responses by participants to the investigation of nursing diagnoses by Martin (1995) and Leuner and Chase (1996).

Random selection was used to improve the likelihood that the findings of the study are representative of NPs in the United States. It was anticipated that using this method would reduce selection bias introduced by the investigator and potential participants.

CHAPTER 4

RESULTS

Technique

The purpose of this study was to explore the use of nursing diagnoses by nurse practitioners. In particular, the study examined whether the use of nursing diagnoses varies with regard to type of NP educational preparation, type of NP clinical preceptor, years of experience as a registered nurse (RN) and NP, and past use of nursing diagnoses. It also assessed what nurse practitioners perceive to be the advantages and challenges to using nursing diagnoses. Data generated from participant surveys were used to gain insight into these questions. Data were analyzed using the Statistical Package for the Social Sciences. A significance of $p < .05$ was accepted for all statistical procedures.

Descriptive statistics were used to analyze and portray sample characteristics and to identify perceived advantages and barriers associated with the use of nursing diagnoses. Chi-square procedures were employed to test for differences between prior experience in using nursing diagnoses and type of clinical preceptor on NPs' current use of nursing diagnoses. Lastly, demographic characteristics, as well as educational preparation and experience, were examined using chi-square and t-test analyses for differences between NPs who use, and NPs who do not use, nursing diagnoses.

Use of Nursing Diagnoses.

Study participants were first asked whether or not they were currently using nursing diagnoses. Of the 249 participants, only 40 (16.5%) reported that they were using nursing diagnoses in practice. Six individuals did not answer this question. In two subsequent questions that explored the percentage of clients for whom NPs wrote nursing diagnoses (Table 3) and the names of the two most frequently used nursing diagnoses, 48 participants (19.4%) answered both of these questions. These findings suggest that 48 NPs in this study did use nursing diagnoses, therefore the statistical analyses were based on these data.

Table 3

Frequency of Nursing Diagnosis Use (n = 248)

Percentage of clients for whom ND are written	Number of NPs n	%
0%	200	(80.6)
10% or less	20	(8.1)
11-25%	16	(6.5)
26-50%	3	(1.2)
51-75%	4	(1.6)
76-100%	5	(2.0)

Note. ND = nursing diagnoses; NP = nurse practitioner

A total of 34 different labels were used to identify nursing diagnoses. The nursing diagnoses identified most frequently were knowledge deficit (n = 17; 6.8%), alteration in

comfort or pain (n = 12; 4.8%), ineffective coping (n = 7; 2.8%), and alteration in nutrition (n = 5; 2.0%).

Yet there seemed to be variation amongst participants regarding apparent knowledge and use of nursing diagnoses. For example, one NP who reported not using nursing diagnoses wrote that s/he did not know what a nursing diagnosis was. Another participant emphasized that although s/he "never" wrote a nursing diagnosis, s/he used "knowledge deficit" for "every" patient. One NP commented that s/he used medical diagnoses in practice but was also "sure" s/he used nursing diagnoses, but not in nursing diagnosis format. Another clarified that s/he did not write nursing diagnoses, but indicated that nursing diagnosis is "part of my operation and function and present inherently".

Years of Experience

Use of nursing diagnoses was analyzed in terms of participants' years of experience as a RN and NP. The average years of experience as a RN in the group that did not use nursing diagnoses (M = 19.3; SD = 8.2) was similar to the group that did use them (M = 18.75; SD = 8.16). As a result, no statistically significant difference in years of experience as a RN was found between the two groups (t = .417; d.f. = 242; p = .677).

A chi-square test was performed to determine if there was a difference in the proportion of NPs who use and do not use nursing diagnoses based on having 21 years or less of experience as a RN versus more than 21 years of experience. This test was intended to acknowledge potential differences in nursing diagnosis education occurring in schools of nursing secondary to the timing of the first NANDA conference in 1973 and the impact on subsequent nursing diagnoses use. Chi-square results showed no statistically significant

difference between NPs who use and do not use nursing diagnoses based on years of experience.

Similar results were obtained for years of experience as a NP. In the group that did not use nursing diagnoses, the average years of NP experience was 5.8 (SD = 5.4) compared with 6.2 years (SD = 5.5) in the group that did use nursing diagnoses. Using a t-test, no statistically significant difference was noted between these groups (t = -.483; d.f. = 245; p = .629).

NP Role Education

Although for 97.6% of participants (n = 242), a master's degree was the highest degree obtained in nursing, only 77.9% (n = 194) were prepared for the NP role at the master's level (n = 194; 77.9%). In addition, 13 (5.2%) were prepared in a certificate program and 39 (15.7%) in a post-master's certificate program. When educational preparation for the NP role was compared, no statistically significant difference was found between the participants who use nursing diagnoses and those who do not, (X^2= 1.976; d.f. = 3; p = .577).

When asked regarding the type of preceptor used in their NP clinical rotations, the majority of participants (n = 187, 75.1%) had experiences with both NP and physician preceptors. In contrast, 9.2% had only NP preceptors and 11.2% had only physician preceptors. The remaining 4.4% (n = 11) reported clinical experiences with combinations of NPs, physicians, physician assistants, midwives, and clinical nurse specialists as preceptors. Table 4 shows the chi-square results examining the differences in types of preceptors used in clinical rotations and NPs' current use of nursing diagnoses. Despite

differences in the percentage of NPs who studied with each type of preceptor, these differences were not statistically significant ($X^2 = 1.718$, p = .633).

Table 4

Experience with Clinical Preceptors by Nursing Diagnosis Groups

Type of Preceptor	Do not use ND (n = 200) n	(%)	Use ND (n = 48) n	(%)
Nurse practitioner	18	(9.0)	4	(8.3)
Physician	20	(10.0)	8	(1.7)
Both NP and physician	153	(76.5)	34	(70.8)
Other	9	(4.5)	2	(4.2)

Note. ND = nursing diagnoses; NP = nurse practitioner

Nursing Diagnosis Education and Experience

Since it was anticipated that some participants were prepared for their RN and/or NP roles before nursing diagnoses were introduced in academic curricula, answers to the question "Have you ever had formal education about nursing diagnoses?" were considered important. A majority of NPs (n = 237, 95.2%) answered this question affirmatively, while only 12 (4.8%) NPs reported they had had no formal education regarding nursing diagnoses.

Approximately three-fourths (77.5%) of the sample received instruction on nursing diagnoses in their original nursing program while 29.3% had formal preparation through a continuing education program. Forty participants reported academic preparation on

nursing diagnoses in baccalaureate, master's, post-graduate, or doctoral programs not associated with their original RN or NP education, or in positions as nurse faculty.

The incidence of work and student-related experience in the use of nursing diagnoses was also determined. Study participants were asked to select all of the roles where they had been expected to use nursing diagnoses. Within the aggregate group, the accountability to use nursing diagnoses as a nursing student was affirmed by 73% (n = 181) of the participants. Similarly, 70% (n = 174) said they were required in at least one practice setting as a RN. In contrast, only 21% (n = 52) of participants reported that use of nursing diagnoses was expected of them as NP students, and 8.9% (n = 22) in their actual NP practice. These findings suggest a considerable regression in the expectation to use nursing diagnoses as NPs learn and develop their role. Finally, 16 respondents (6.5%) indicated that the use of nursing diagnoses was never expected of them in past student, RN, or NP roles.

The incidence of participants' current use of nursing diagnoses was examined in relationship to their past experiences using chi-square analysis. Even though there was a higher percentage of NPs currently using nursing diagnoses who were also expected to use them as nursing students, compared with NPs who do not use nursing diagnoses, the data revealed no statistically significant difference between the two groups. Similarly, there was no significant difference between NPs who use and do not use nursing diagnoses in the percentage who had incorporated them in at least one previous RN practice setting.

In contrast, the results indicated that there was a significantly higher percentage of NPs using nursing diagnoses who had been expected to use them as NP students, than

NPs who were not using nursing diagnoses. Additionally, there was a statistically significant, higher percentage of NPs that currently use nursing diagnoses who had been expected to use them in at least one practice setting as a NP. Finally, there was no statistically significant difference between NPs who use and those who do not use nursing diagnoses in the proportion who have never used nursing diagnoses in a past work or academic setting. These results are summarized in Table 5.

Table 5

Past Experience with Nursing Diagnoses and Current Nursing Diagnosis Use

Past Role Expectation to Use ND		Do Not Use ND n	(%)	Use ND n	(%)	χ^2	p
Nursing student -	yes	141	(70.9)	39	(81.3)	2.114	.146
	no	58	(29.1)	9	(18.8)		
RN practice -	yes	136	(68.3)	37	(77.1)	1.408	.235
	no	63	(31.7)	11	(22.9)		
NP student -	yes	30	(15.1)	22	(45.8)	22.012	.000
	no	169	(84.9)	26	(54.2)		
NP practice -	yes	7	(3.5)	15	(31.3)	36.657	.000
	no	192	(96.5)	33	(68.8)		
No past use -	yes	13	(6.5)	3	(6.3)	.005	.943
	no	186	(93.5)	45	(93.8)		

Note. ND = nursing diagnoses; RN = registered nurse; NP = nurse practitioner

Perceived Advantages of Using Nursing Diagnoses

Participants who reported using nursing diagnoses were asked to select perceived advantages of using them and rate their significance. Most significantly, the NPs perceived

that the use of nursing diagnoses "Fosters more holistic, client-centered care" (M = 3.5; SD = 1.80). Other advantages were "Promotes nursing care which meets standards of practice" (M = 2.4; SD = 1.94) and "Defines scope and realm of nursing practice" (M = 2.1; SD = 1.94). The least significant advantage identified was that the use of nursing diagnoses "Improves the use of the nursing process" (M = 1.60; SD = 1.83). One participant wrote that nursing diagnoses improve the ability to describe the client's or family's problem, and rated this a significant advantage. Interestingly, an NP who had otherwise negative comments about nursing diagnoses offered the opinion that all of the advantages of nursing diagnoses can be "accomplished by providing quality nursing care" and writing a more succinct "A", or assessment, in the patient's progress notes.

Whereas it was intended that only NPs who used nursing diagnoses (n = 48) would select and rate the advantages of using them, an additional 29 participants responded. Interestingly, when the responses of this combined group (n = 77) were examined, data revealed that 64 NPs perceived that the use of nursing diagnoses "Fosters more holistic, client-centered care". Fifty participants rated this a moderate to significant advantage.

Perceived Challenges to Using Nursing Diagnoses

All study participants were asked to identify perceived challenges to the use of nursing diagnoses and to rate their significance using a 5-point Likert scale (1 = slight challenge, 5 = significant challenge). Data were categorized into two groups according to participants' use of nursing diagnoses.

For the NPs who used nursing diagnoses, only three of the eight possible challenges achieved a mean rating of "1" (slight challenge) or higher. In addition, none of

the challenges they identified received an average rating of greater than "3". As shown by the data in Table 6, the most significant challenge for NPs in this group was the "lack of reimbursement" for nursing diagnoses. As one participant commented, the lack of reimbursement for nursing diagnoses was the only reason s/he does not use them. It is also noteworthy that all categories indicating "lack of support" were not even considered to be slight challenges. The only additional challenge to using nursing diagnoses identified by one person in this group was that nursing diagnoses do not match current procedural technology (CPT) codes.

Table 6

Challenges to the Use of Nursing Diagnoses - NPs Who Use Them

Challenge	Mean	(SD)
Lack of reimbursement	2.44	(2.27)
Lack of clarity of ND language	1.54	(1.89)
Lack of time	1.19	(1.61)
Lack of administrative support	.94	(1.71)
Lack of physician support	.92	(1.71)
Lack of knowledge (ND)	.60	(.98)
Lack of co-worker support	.46	(1.03)
Lack of peer (NP) support	.19	(.45)

Note. ND = nursing diagnoses; NP = nurse practitioner

"Lack of reimbursement" was also the most significant challenge identified by the NPs who did not use nursing diagnoses, with an item mean of 3.34 (SD = 2.17), followed by "Lack of clarity of ND language" (M = 2.25; SD = 2.12). Areas of lack of support and knowledge were perceived as least challenging among this group (Table 7).

Table 7

Challenges to the Use of Nursing Diagnoses - NPs Who Do Not Use Them

Challenge	Mean	SD
Lack of reimbursement	3.34	(2.17)
Lack of clarity of ND language	2.25	(2.12)
Lack of physician support	1.66	(2.03)
Lack of time	1.48	(1.86)
Lack of administrative support	1.29	(1.88)
Lack of peer (NP) support	1.08	(1.73)
Lack of co-worker support	.98	(1.62)
Lack of knowledge (ND)	.92	(1.43)

Note. ND = nursing diagnoses; NP = nurse practitioner

While both groups noted challenges to the use of nursing diagnoses, it was clear that the NPs who do not use nursing diagnoses perceived more barriers to their use. In addition, the order of significance for the eight challenges was different in the two groups. For example, "lack of time" was rated the third most significant challenge for NPs who use nursing diagnoses, and fourth for the NPs who do not. Despite this, "lack of time"

achieved a higher mean value (M = 1.48) in the NP group that does not use nursing diagnoses than in the NP group that uses them (M = 1.19).

Besides the eight challenges listed on the questionnaire, 54 participants identified additional challenges. These challenges were grouped into six themes to facilitate the presentation of the data. The NPs reported pragmatic problems with nursing diagnoses such as, not matching International Classification of Disease (ICD)/CPT codes. Another challenge identified was that computer and dictation systems do not incorporate nursing diagnoses.

Other NPs felt that nursing diagnoses were not part of the NP role, that as NPs they provide more medical care than nursing care, or that they follow a medical model. One of the participants wrote, "I do not identify myself as practicing nursing and therefore do not use nursing diagnoses". Impairment of interdisciplinary care and communication, particularly with physicians, was also attributed as a challenge. Some respondents stated that physicians, other health care staff, and insurers do not understand nursing diagnoses or know what they mean, therefore do not recognize or value them.

Strong devaluation of nursing diagnoses was expressed by a few NPs in comments such as nursing diagnoses are useless, ridiculous, "I don't believe in them", and "I don't like them". One respondent exclaimed, "Never would use! They died in the late 1970s." Two participants noted that nursing diagnoses were helpful for teaching and learning purposes, but not clinically. The most common "other" challenge identified by participants (n = 17) was the inability of nursing diagnoses to adequately address a patient's problem.

Some participants described them as "not easy to use", "too wordy", "too vague and imprecise", and not useful in the practice setting.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

Discussion

The results of this study suggest that the majority of NPs do not use nursing diagnoses in their clinical practice. These findings are similar to those reported by Martin (1995) and Leuner and Chase (1996) who found that 85% and 64%, respectively, of their study sample did not use nursing diagnoses. Besides identifying NPs' current use of nursing diagnoses, this study was also concerned with differences, if any, between factors such as NP education, type of clinical preceptor, prior student or professional experiences with nursing diagnoses, and their use. King's (1981) conceptual framework of nursing provides a basis for understanding these relationships.

King's (1981) conceptual framework describes the impact of the personal, interpersonal, and social systems on the functioning of human beings. For the purposes of this study, the education of NPs, as well as their past experiences in the use of diagnoses and role-modeling of these behaviors by peers or leaders may be viewed as specific factors which influence the personal and interpersonal systems. As study data revealed, NPs who use and do not use nursing diagnoses were not significantly different in terms of their average years of experience as RNs or NPs. Nor did more "recent" experience (21 or less years) as RNs impact the percentage of NPs who currently use nursing diagnoses.

The results of the study also indicated that NPs who use nursing diagnoses were not significantly different in their educational preparation than NPs who do not use them. The sample size may not have been large enough to detect a significant difference, particularly due to the comparatively small number of NPs in the group who used nursing diagnoses.

The findings obtained in this study reveal a substantial increase in the proportion of NPs, overall, who are prepared at the master's or post-graduate level compared with data reported in earlier studies. For example, Martin (1995) found that only 49.2% (n = 88) of the participants in her study were prepared in a master's NP program (p. 12). In a later study, Leuner and Chase (1996) reported that 69% (n = 95) of the NPs in their sample were prepared in a master's or post-master's NP program (p. 309). Despite the higher percentage of NPs (83.1%) in this study who were prepared at the graduate or post-graduate level, there was only a slightly highere percentage of them who used nursing diagnoses compared with the Martin (1995) and Leuner and Chase (1996) studies.

There was no statistically significant difference between the NPs who used nursing diagnoses and those who did not in the type of clinical preceptor(s) utilized in their NP education program. Over 70% of NPs in each group had experiences with both NP and physician preceptors, with less than 10% of NPs in each group having only NP preceptors. These data make it difficult to detect differences between NPs who use and do not use nursing diagnoses with those that had only NP or only physician preceptors. This study was unable to add insight into the anecdotal responses of the NPs in the Leuner and Chase (1996) study who reported that their preceptors never used nursing diagnoses.

The concept of role as depicted in King's (1981) conceptual framework was also relevant to the research questions of this study. In particular, the role behavior of NPs, specifically their use of nursing diagnoses, can be understood in terms of their personal, academic, and professional experiences with other NPs, as well as non-NP "role-models". Study data revealed no significant difference in nursing diagnosis use and expectations to use them as nursing students or in RN practice. Based on these results, no inferences can be made between use of nursing diagnoses as a student or practicing RN and the role behavior of a NP. A small sample size may have contributed to the inability to detect a significant difference between the two groups.

However, the results did reveal that the expectation to use nursing diagnoses in the NP student role and in at least one practice setting as a NP significantly affected NPs' use of nursing diagnoses in their current practice. These findings imply that academic and practice-oriented experiences with nurse practitioners are more important and may have greater impact on NPs' use of nursing diagnoses than other experiences with nursing diagnoses. Another factor may be that study participants had an average of 19.2 years of experience as RNs, but an average of only 5.9 years as NPs. This represents a span of nearly 14 years between preparation for the two roles and may explain why the role modeling during NP education was more meaningful.

When NPs selected and rated the advantages of using nursing diagnoses, the most significant advantage identified was "Fosters more holistic, client-centered care". Despite this finding, one NP who did not use nursing diagnoses commented, "I provide holistic

care to my patients emphasizing what I consider the 'nursing' focus but do it within the medical model that we practice as NPs".

Two other advantages of using nursing diagnoses, "Promotes nursing care which meets standards of practice" and "Defines scope and realm of nursing practice", were considered significant. Clearly, to perceive these items as advantages, one needs to recognize them as not only valuable but also as part of the domain of the NP. This stands in sharp contrast to comments by other participants who indicated that their practice as NPs is based on a medical model.

It is unclear why so many NPs, who indicated earlier in the questionnaire that they did not use nursing diagnoses, selected and rated the advantages of nursing diagnoses. Perhaps some NPs were answering in light of theoretical advantages of using them. Others may have answered from past rather than current experiences with nursing diagnoses. Based on their comments, some NPs may have responded because they perceive that their practice incorporates nursing diagnoses even though they are not documenting them. Another possibility is that the instrument's instructions were not clear enough in identifying which questions were required of different participants.

In terms of challenges to using nursing diagnoses, the NP groups were consistent in their perceptions of the two most significant challenges, namely "lack of reimbursement" for nursing diagnoses and "lack of clarity of nursing diagnosis language". Certainly, the lack of reimbursement for nursing diagnoses represents a fundamental dilemma that is beyond the scope of problem solving of the individual NP. In addition, the ability to generate revenue as a direct result of services provided is a significant role

change for NPs. The expectation that NP services will contribute to the bottom line of the organizations NPs work in, or independently own, may be a stronger motivator of service than other practice ideals, including the use of nursing diagnoses.

The challenge to using nursing diagnoses, "Lack of clarity of nursing diagnosis language", may represent an actual problem with nursing diagnosis language and/or inadequate practitioner understanding of nursing diagnoses. Approximately 43% (n = 106) of the aggregate group in this study indicated that "lack of knowledge" of nursing diagnoses was a slight to significant challenge for them. However, the incidence of this as a challenge within the two groups (NPs who use and do not use nursing diagnoses) was not measured. So, even though "lack of knowledge" was a challenge for a large number of NPs, it is unclear how significant a factor it is in whether NPs do, or do not, use nursing diagnoses. In addition, 12 NPs in this study (4.8%) reported they never had formal education regarding nursing diagnoses. This is in contrast to Martin's (1995) findings where 54.6% (n = 99) of participants had no formal education about them as defined by NANDA.

Every challenge to the use of nursing diagnoses received a lower item mean by NPs who currently use them than by NPs who do not. This difference in the perceived significance of each challenge between the groups may be the result of the small number of NPs in the group that use nursing diagnoses. It may also mean that NPs who do not use nursing diagnoses either experience or perceive the challenges as more significant. For example, they may have less time available to them or they may receive less support from physician, NP, and leadership colleagues than NPs who do use nursing diagnoses.

Strengths and Limitations

This study has several strengths. First, it examined a phenomenon for which there has been limited research. It also expanded upon the work done by Martin (1995) by incorporating into the questionnaire some of the advantages of using nursing diagnoses identified in her study and verifying their relevance to NPs. This study provided additional insight into the use of nursing diagnoses by examining the effect of participants' experiences with different clinical preceptors and their past academic and clinical use of nursing diagnoses. It employed a random sample from a national database and achieved a response rate of greater than 60%.

Nonetheless, the study's overall sample size was a limitation to the generalizability of the findings. In addition, although participants were widely representative of the specialties and geographic locations of NPs' practices across the United States, the size of the group of NPs who use nursing diagnoses was small. As a result, the unequal group size may have hindered the ability to detect differences in statistical analyses.

Another limiting factor may be associated with the instrument used in the study. Based on the responses and written comments of the participants, improvement in the clarity of some elements of the instrument may be warranted. In particular, it was intended that NPs who reported not using nursing diagnoses would only answer the first 14 questions of the questionnaire (see Appendix A). Yet, some participants in this group answered additional questions that were intended only for NPs who use nursing diagnoses. Hopefully, more explicit directions would have prevented this presumed confusion in how to complete the questionnaire. In addition, one NP was unclear about how to answer the

question regarding challenges to using nursing diagnoses and commented, "Question doesn't specify what type of practice: NP or as RN". Again, more concise wording of the question may have eliminated this uncertainty.

Implications

The results of this study failed to show significant differences between the NPs who reported using nursing diagnoses and those not using them except in the number of NPs who had prior experience with them as NP students and in NP practice. Despite the apparent lack of significant differences between the groups, there was a small number of participants (4.8%) in the aggregate sample who had never received education on nursing diagnoses and a much larger number (43%) who rated "lack of knowledge of nursing diagnoses" as a challenge for them. Certainly, all nursing students should graduate with a meaningful foundation of knowledge and experience in using nursing diagnoses. In addition, if "role-modeling" during NPs' advanced practice education has a positive influence on the number of NP students who subsequently use nursing diagnoses, then specific curricular objectives related to how nursing and medical diagnoses work together in NP practice may be helpful.

Another implication of this study for advanced practice nurse educators, administrators, and practicing NPs relates to the comments of some participants that they follow a medical model and that they do not see themselves as practicing nursing. Although the NP role includes generating "comprehensive health assessments, differential diagnoses, and the prescribing of pharmacologic and non-pharmacologic treatments in the direct management of acute and chronic illness and disease" (ANA, 1996, p. 4), it is also

defined by advanced practice nursing standards which include health promotion and maintenance, and disease, illness, and injury prevention (ANA, 1996). It is concerning that some NPs identify more with a medical model than with advanced practice nursing particularly given the definition, scope of practice, and standards of the NP role. Continued education and support by educators, administrators, and NPs in practice regarding the advanced practice role and the unique contributions NPs make to the health care team are encouraged.

A significant problem iterated by participants in this study, as well as Martin's (1995), is the lack of reimbursement for nursing diagnoses and its perceived effect on their ability to use them. Nurses who will have the greatest impact on the problem of reimbursement are those in positions of leadership and at national policy-making levels where strategies for recognizing and reimbursing nursing diagnoses, interventions, and outcomes can be developed. All nurses, including NPs, should support such efforts through membership in state and national organizations where this work is done.

There are implications of this study for nurses involved anywhere in the definition and evaluation of nursing diagnoses, and certainly at the national level where leadership in the development of nursing diagnoses occurs. Lack of clarity of nursing diagnosis language was the second most significant challenge to the use of nursing diagnoses identified by NPs in this study. This perception, and its basis, needs to be understood and addressed for nursing diagnoses to be endorsed by individual nurses, nursing leaders, and health care organizations. Burns (1992) acknowledged the dilemma pediatric nurse practitioners (PNPs) have in labeling the problems they manage by developing a pediatric

assessment model and tool. The tool has been helpful, according to Burns, in addressing the diagnosis of disease (medical diagnoses), the human response to disease (nursing diagnoses), and the developmental issues facing many clients better than the medical model alone does. "The tool has proved useful in sorting out complex patient issues. It also has served as a powerful tool to clarify the PNP role among other team members and visiting students of many disciplines" (Burns, p. 80). If it is a goal that nursing diagnoses be truly effective in the management of patients seen by NPs, then it will be worthwhile to openly explore the perception that the language is unclear. A vision for further nursing diagnosis development could be that by 2020, most nurses will be able to say, "we cannot imagine practicing without them".

Implications of this study for research include further investigation of NPs' perceptions of their role. Of concern is the extent to which NPs perceive themselves to be advanced practice nurses or medical care providers. Perhaps some NPs choose their role because they want to provide a service that more closely resembles medicine than nursing. This would seemingly impact their overall interest in using nursing diagnoses, regardless of whether or not the language was clear. Another research question to examine is, do NPs who practice in specialties that are closely associated with acute care, or the management of specific diseases, perceive their roles differently than NPs who practice in primary care settings? It is conceivable that a more disease-oriented practice would make the use of nursing diagnoses more challenging.

Lastly, use of research methods to determine the evidence of expectations to use nursing diagnoses, clinically or theoretically, in advanced practice nursing curricula would

be helpful. If NP student experiences with nursing diagnoses are meaningful in influencing future NP role behavior, then assessment of whether graduate programs expect such from its students would provide useful data.

Recommendations

The random selection process used to derive the study sample helped to improve the quality of the results. However, the overall sample size was not large enough to generalize the study results. Replication of this study with a larger population is recommended.

Further, it is recommended that three format changes be made in the instrument prior to replicating this study. First, it would be helpful to more clearly delineate the questions participants are to answer, or omit, depending on whether they use or do not use nursing diagnoses. Based on the written comment of one participant, it is also recommended that participants be asked to answer all questions pertaining to nursing diagnoses (#13 – 18) as NPs not as RNs.

A third suggestion is to modify the Likert scale used to rate the challenges and advantages of using nursing diagnoses. This is based on the observation that some participants checked specific challenges or advantages, but did not rate them, and vice versa. Recommended options include either adopting a Likert scale that includes a "0" for rating the advantages and challenges, or re-label the scale so that "1" equals "no challenge" or "no advantage", not slight challenge or slight advantage. The use of these suggestions would likely reduce doubt about participants' intent in rating.

Without solicitation, some participants provided strong feedback regarding nursing diagnoses. The use of open-ended questions in the questionnaire may have elicited additional helpful data from the NPs regarding their perceptions and experiences with nursing diagnoses.

Conclusion

In conclusion, this study served to identify the current use of nursing diagnoses by nurse practitioners. It explored NPs' perceptions of the advantages and challenges to using them. The challenges to using nursing diagnoses identified by NPs in this study must be faced if nursing diagnoses are to be the language NPs use to define and describe the unique services they offer. This is also an opportunity to maximize the advantages of using nursing diagnoses and to support their use – through education, improvement in diagnostic language, role modeling, and administrative advocacy. Further research to compare the use of nursing diagnoses by NPs in primary care versus tertiary care or disease-oriented specialties would be beneficial. In addition, to improve generalizability of the research results, a larger study may be required to detect differences between NPs who use and do not use nursing diagnoses.

APPENDICES

APPENDIX A

Nurse Practitioners' Use and Perceptions of Nursing Diagnoses

APPENDIX A

Nurse Practitioners' Perceptions and Use of Nursing Diagnoses

1. Do you currently see patients as a nurse practitioner in a clinical setting? _____

   Which state do you practice in? _____

2. Your age in years _____

3. Total number years as a licensed registered nurse: _____

4. Years of practice as a nurse practitioner (NP): _____

5. Highest degree obtained in nursing:

   _____ Associate Degree
   _____ Diploma
   _____ Baccalaureate (B.S./B.S.N.)
   _____ Master's (M.S./M.N./M.S.N.)
   _____ Doctorate (Ph.D., D.N.Sc.)
   _____ Other (please describe) _____

6. Type of nurse practitioner education program completed:

   _____ Certificate program
   _____ Master's program
   _____ Post-master's certificate program
   _____ Other (please specify) _____

7. What type of preceptor was used in your personal clinical rotation(s) as a NP student?

   _____ NP
   _____ Physician
   _____ Both NP and physician
   _____ Other (please specify) _____

please continue to the next page ⇒

8. Specialty area (Check all that apply.)

_____ Acute Care
_____ Adult Health
_____ College Health
_____ Emergency
_____ Family
_____ Family Planning (GYN only)
_____ Geriatric
_____ Mental Health
_____ Neonatal
_____ Nurse Midwife
_____ Occupational Health
_____ Oncology
_____ Pediatric
_____ School
_____ Women's Health
_____ Other (please specify)
_____

9. Current practice setting (Check all that apply):

_____ Acute Care Facility
_____ Health Department
_____ Independent Private Practice
_____ Long Term Care Facility
_____ Mental Health Facility
_____ Nursing Education
_____ Occupational Health
_____ Physician's Office
_____ Rural Clinic (not Health Department)
_____ Student Health Center
_____ Other (please specify)
_____

10. Average number of clients seen per day: _____

11. Have you ever had formal education about nursing diagnoses?

_____ No
_____ Yes. If yes, where? (Check all that apply.)
  _____ Original nursing program
  _____ Inservice or continuing education
  _____ Other (please specify) _____

12. In which past roles was it an expectation that you diagnose patient problems using nursing diagnoses? (Check all that apply.)

_____ As a nursing (RN) student
_____ In at least one practice setting as a RN
_____ As a NP student
_____ In at least one practice setting as a NP
_____ None

please continue to the next page ⇛

13. Do you use nursing diagnoses in your current clinical practice?

←____ Yes (Please continue to question 15)
____ No (Please answer question 14)
↓

14. Please identify the challenges to using nursing diagnoses in your practice and rate their significance. (Check all that apply.)

	Slight Challenge				Significant Challenge
____ Lack of knowledge of nursing diagnoses	1	2	3	4	5
____ Lack of time	1	2	3	4	5
____ Lack of support					
____ Administrative	1	2	3	4	5
____ Physician	1	2	3	4	5
____ Peers (NPs)	1	2	3	4	5
____ Co-workers	1	2	3	4	5
____ Lack of clarity of nursing diagnosis language	1	2	3	4	5
____ Lack of reimbursement for nursing diagnoses	1	2	3	4	5
____ Other (Please identify and rate)					
_____	1	2	3	4	5

Thank you for taking the time to complete this questionnaire!
Please place it in the envelope provided and put in the mail.
Questionnaires must be received by November 16.

15. For what percentage of clients do you write a nursing diagnosis? _____ ≤10 %
_____ 11-25% _____ 26-50% _____ 51-75% _____ 76-100%

16. Please list the 2 nursing diagnoses you use most frequently in your clinical practice.

1. _____

2. _____

please continue to the next page ⇒

17. Please indicate the challenges you have encountered in using nursing diagnoses in your clinical practice and rate the degree of significance. Check all that apply.

	Slight Challenge				Significant Challenge
____ Lack of knowledge of nursing diagnoses	1	2	3	4	5
____ Lack of time	1	2	3	4	5
____ Lack of support					
____ Administrative	1	2	3	4	5
____ Physician	1	2	3	4	5
____ Peers (NPs)	1	2	3	4	5
____ Co-workers	1	2	3	4	5
____ Lack of clarity of nursing diagnosis language	1	2	3	4	5
____ Lack of reimbursement for nursing diagnoses	1	2	3	4	5
____ Other (Please identify and rate)					
_____	1	2	3	4	5

18. Please indicate the advantages of using nursing diagnoses in your practice and rate the degree of significance. Check all that apply.

	Slight Advantage				Significant Advantage
_____ Improve use of the nursing process	1	2	3	4	5
_____ Promotes nursing care which meets standards of practice	1	2	3	4	5
_____ Fosters more holistic, client-centered care	1	2	3	4	5
_____ Defines scope and realm of nursing practice.	1	2	3	4	5
_____ Other (Please identify and rate.)					
_____	1	2	3	4	5

Thank you taking the time to complete this questionnaire!
Please place it in the postage-paid envelope and put in the mail.
Questionnaires must be received by November 16.

APPENDIX B

Permission to Use Instrument

APPENDIX B

September 16, 1999

Gay Kaashoek
147 Mayfield Ave. NE
Grand Rapids, MI 49503

Dear Gay,

I am sorry for the delay in responding to our phone conversation. I had some difficulties with my computer. I have included the tool I developed for my research project. I hope this letter will suffice for official documentation of my consent for you to utilize and adapt the tool as you se fit for your study. I hope it can be of some use to you.

I wish you success in your endeavors.

Sincerely,

[redacted]

Kathleen Martin CRNP, MSN
3224 Maze
Boise, ID 83706

APPENDIX C

Cover Letter to Participants

APPENDIX C

Cover Letter to Participants

Dear Colleague,

I am conducting a study to assess the extent to which nurse practitioners (NPs) use nursing diagnoses and factors that may affect their use. You are one of 400 NPs randomly selected from a national database of the American Academy of Nurse Practitioners to participate in this study. The study and its results will be reported in my thesis in partial fulfillment of the requirements for a master's degree in nursing from Grand Valley State University. Your experiences and perspectives are very important. Will you please assist me by completing the enclosed questionnaire?

I hope that you will feel comfortable to completely and honestly respond to the questions. The questionnaire will take approximately 10-15 minutes to answer. When you are finished, please place the questionnaire in the enclosed envelope and put it in the mail. All responses will be analyzed as a group.

By voluntarily completing and returning the questionnaire, you indicate that you understand the study and give permission to be included in it. There is no risk to you in completing and returning it. The questionnaire is completely anonymous. You are asked not to identify yourself in any way. There has been no attempt to code the questionnaire.

If you have questions about the survey, you are welcome to call me at (616) 774-5216, or the chairperson of my thesis committee, Dr. Linda Scott at (616) 336-7171. In addition, this study has been approved by the Human Research Review Committee

of Grand Valley State University. Questions about the approval and your rights in the study may be directed to Professor Paul Huizenga, Chairperson of the Human Research Review Committee, at (616) 895-2472.

You may receive a summary of the results of the study by writing "Copy of the results requested" on a separate piece of paper along with your name and address. This request can be mailed to me separately at the address cited at the beginning of the letter.

Thank you very much for your willingness and time to assist in this effort. To be included in the study, please return the questionnaire in the envelope provided by November 16.

Sincerely,

Gay R. Kaashoek, B.S., R.N.

APPENDIX D

Human Subjects Review Permission

GRAND VALLEY
STATE UNIVERSITY
1 CAMPUS DRIVE • ALLENDALE, MICHIGAN 49401-9403 • 616/895-6611

October 23, 2000

Gay Kaashoek
147 Mayfield Ave. NE
Grand Rapids, MI 49503

RE: Proposal #01-43-H

Dear Gay:

Your proposed project entitled **Nurse Practitioners' Perception and Use of Nursing Diagnoses** has been reviewed. It has been approved as a study, which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

[redacted]

Paul A. Huizenga, Chair
Human Research Review Committee

LIST OF REFERENCES

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American Academy of Nurse Practitioners. (1998). Scope of practice for nurse practitioners. Austin, TX: Author.

American Nurses Association. (1983). Nurse practitioners: A review of the literature. Kansas City, MO: Author.

American Nurses Association. (1991). Standards of clinical nursing practice. Washington, DC: American Nurses Publishing.

American Nurses Association. (1996). Scope and standards of advanced practice registered nursing. Washington, DC: American Nurses Publishing.

Billingsley, M. C. (1986). The process study. Nurse Practitioner, 11(1), 53, 56, 68.

Brush, B. L., & Capezuti, E. A. (1997). Professional autonomy: Essential for nurse practitioner survival in the 21st century. Journal of the American Academy of Nurse Practitioners, 9, 265-269.

Burns, C. (1991). Development and content validity testing of a comprehensive classification of diagnoses for pediatric nurse practitioners. Nursing Diagnosis, 2(3), 93-104.

Burns, C. (1992). A new assessment model and tool for pediatric nurse practitioners. Journal of Pediatric Health Care, 6(2), 73-81.

Carlson-Catalano, J. (1998). Nurse practitioners' use of nursing diagnoses. Nursing Diagnosis, 9(1), 2, 39, 40.

Carlson-Catalano, J., & Judge, M. K. M. (1998). Marketing nursing in a nurse practitioner practice. Nursing Diagnosis, 9(4), 155-158.

Carroll-Johnson, R. (Ed.). (1993). Classification of nursing diagnoses: Proceedings of the sixth conference. Philadelphia: Lippincott.

De Gowin, R.L. (1994). De Gowin & De Gowin's diagnostic examination (6th ed.). New York: Mc Graw-Hill.

Dorland's illustrated medical dictionary (29th ed.). (2000). Philadelphia: W.B. Saunders.

Edmunds, M. (Ed.). (1984, May). Do nurse practitioners still practice nursing? Nurse Practitioner, 47, 51.

Hawkins, J. W., & Thibodeau, J. A. (1996). The advanced practice nurse: Current issues (4th ed.). New York: Tiresias Press.

Jacox, A. (1987). The OTA report: A policy analysis. Nursing Outlook, 35, 262-267.

King, I. M. (1981). A theory for nursing: Systems, concepts, process. New York: John Wiley & Sons.

Leuner, J. D'Meza, & Chase, S. K. (1996). Nurse practitioners and nursing diagnosis: Is nursing practice visible? In M. J. Rantz, & P. LeMone (Eds.)., Classification of nursing diagnoses: Proceedings of the twelfth conference (pp.306-313).

Martin, K. (1995). Nurse practitioners' use of nursing diagnosis. Nursing Diagnosis, 6(1), 9-15.

Mills, W. C. (1991). Nursing diagnosis: The importance of a definition. Nursing Diagnosis, 2(1), 3-8.

Mundinger, M. O. (1980). Autonomy in nursing. Germantown, MD: Aspen Systems.

Mundinger, M. O., Kane, R. L., Lenz, E. R., Totten, A. M., Tsai, W., Cleary, P. D., Friedewald, W. T., Siu, A. L., & Shelanski, M. L. (2000). Primary care outcomes in patients treated by nurse practitioners or physicians. JAMA, 283, 59-68.

Pastorino, C. (1998, November/December). Advanced practice nursing role: Nurse practitioner. Orthopaedic Nursing, 65-69.

Polit, D. F., & Hungler, B. P. (6th ed.). (1998). Nursing research: Principles and methods. Philadelphia: J. B. Lippincott.

Powers, M. J., Jalowiec, A. J., & Reichelt, P. A. (1984, February). Nurse practitioner and physician care compared for nonurgent emergency room patients. Nurse Practitioner, 39, 42, 44, 45, 48, 52.

Price, M. J., Martin, A.C., Newberry, Y. G., Zimmer, P. A., Brykczynski, K. A., & Warren, B. (1992). Developing national guidelines for nurse practitioner education: An overview of the product and the process. Journal of Nursing Education, 31(1), 10-15.

Ramsay, J. A., McKenzie, J. K., & Fish, D. G. (1982). Physicians and nurse practitioners: Do they provide equivalent care? American Journal of Public Health, 72, 55-57.

Romaine-Davis, A. (1997). Advanced practice nurses: Education, roles, trends. Boston: Jones & Barlett.

Spitzer, W. O., Sackett, D. L., Sibley, J. C., Roberts, R. S., Gent, M., Kergin, D. J., Hackett, B. C., & Olynich, A. (1974). The Burlington randomized trial of the nurse practitioner. The New England of Medicine, 290, 251-256.

Stanford, D. (1987). Nurse practitioner research: Issues in practice and theory. Nurse Practitioner, 12(1), 65-79.

Sulz, H. A., Henry, O. M., Bullough, B., Maslach-Buck, G., & Kinyon, L. J. (1983). Nurse practitioners: A decade of change-part III. Nursing Outlook, 31, 266-269.

Thibodeau, J. A., & Hawkins, J. W. (1994). Moving toward a nursing model in advanced practice. Western Journal of Nursing Research, 16, 205-218.

Ward, M. J. (1979). Family nurse practitioners: Perceived competencies and recommendations. Nursing Research, 28, 343-347.