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Practice Patterns Contributing to Positive Patient Outcomes by Nurse Practitioners

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**SAN JOSE STATE UNIVERSITY
SCHOOL OF NURSING**

**MASTER'S PROGRAM PROJECT OPTION (PLAN B)
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The project and the manuscript have been successfully completed and meet the standards of the School of Nursing University. The project demonstrates the application of professional knowledge, clinical expertise, and scholarly thinking. An abstract of the project and two copies of the manuscript are attached.

Elizabeth O. Duff

5/18/05

ADVISOR'S SIGNATURE

DATE

Ungil Parsons

5/18/05

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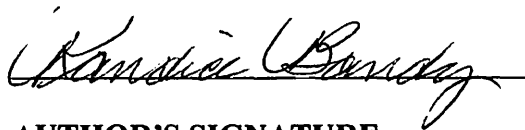
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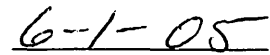
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Practice Patterns Contributing to Positive Patient Outcomes by Nurse Practitioners

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Abstract

Purpose

The purpose of this study was to identify NP practice patterns most important for positive patient outcomes.

Data Sources

A convenience sample (n = 93) of Nurse Practitioners attending the 2005 California Association for Nurse Practitioners Conference (N = 535) completed the survey.

Conclusions

The most important practice patterns identified were associated with patient-centered care. When analyzed with years in practice, patient-centered practice patterns continued to be the most important. This study suggests that patient-centered practice patterns are most important to positive patient outcomes for NPs.

Implications for practice

Identifying the practice patterns that are most important to positive patient outcomes creates a distinct picture of the quality of care that is unique to nursing. As the role of NP continues to expand and be defined, these practice patterns will provide evidence of the unique quality of care given by the NP profession.

Keywords: Nurse Practitioner practice patterns, patient outcomes, quality of care

Practice Patterns Contributing to Positive Patient Outcomes

by Nurse Practitioners

The nurse practitioner (NP) profession began in 1965, providing care to underserved populations in rural and inner city areas. Since that time, the NP role has expanded to provide care to well-served populations with medical insurance and adequate access to medical providers. With varying degrees of autonomy and prescriptive rights of practice in each state, NPs have significantly impacted the primary care of patients. Expansion of the NP role has brought increased opposition from the American Medical Association (AMA), questioning the quality of NP care and the expansion of NP autonomy (Pearson, 2002). Since the education requirements for NPs are less than for physicians, the quality of NP care has been questioned (Diamond, 2000). The literature has addressed this question and the studies concluded that NPs provided safe and effective care with patient outcomes equivalent to physicians (Mundinger, 2000).

Even though these studies concluded that NP and physician patient outcomes were equivalent, the NP profession has had difficulty getting legislation passed to practice more independently. In Greene (2001), the president of the Illinois State Medical Society suggested that non-physician independent practice was a public health risk and that legislation should not support independent practice of those with less education than physicians. Levels of independence for NP practice have continued to vary from state to state, showing inconsistent resolution regarding NP autonomy within the legislature (Pearson, 2005). Although studies have repeatedly shown NPs to give equal, if not better, care than physicians, the legislators and the AMA have not fully supported this conclusion. Given these circumstances, the NP profession needs to address the issue regarding equal patient outcomes in spite of different educational

requirements for NPs and physicians. Defining a distinctive quality of care may address this issue. This concept motivated this study to explore which practice patterns may contribute to positive patient outcomes in advanced practice nursing. Identifying these practice patterns is a step toward defining a distinctive quality of care for NPs, which may account for the equal patient outcomes with different educational requirements.

Problem Statement

Research studies have concluded that the patient outcomes of NPs and physicians were equivalent (Mundinger et al., 2000). Since the education requirements for advanced practice nursing are less than for medicine, it appears logical that the patient outcomes might be compromised. Using this logic, the legislators and the AMA have resisted the independent practice of NPs (Pearson, 2002). To address the issue of equal patient outcomes with different educational requirements, this study explored which practice patterns were most important for positive patient outcomes in NP practice.

Purpose

The purpose of this study was to examine the practice patterns contributing to positive patient outcomes for NPs. Since past studies noted differences between the NP and physician approach to patient care, NP practice patterns were examined as a possible difference in approach to care. The most important practice patterns of NPs were identified to explain the dilemma of equal outcomes with different educational requirements. By identifying important NP practice patterns the study aims to further define the distinctive quality of care of NPs and form a basis for further studies.

Research Question

Studies have shown equal patient outcomes for NPs and physicians. Educational requirements are less for NPs than physicians. To address the discrepancy between these two phenomena, the researcher identified the most important practice patterns of NPs which contribute to positive patient outcomes. The question of import was, "Which practice patterns do NPs report as most important to positive patient outcomes in their practice?"

Theoretical Framework

The theoretical framework used to examine NP practice patterns was Peplau's Interpersonal Nursing Theory (Peplau, 1989). Peplau's theory included core concepts of nursing, such as nursing, person, environment, and health. Nursing in Peplau's theory was considered an instrument of education to promote health. The person, either the nurse or the patient, was an individual in an unstable environment that develops through interpersonal relationships. The environment was the physiological, psychological, and social elements that were illness maintaining or health promoting. Health was the forward movement toward creative and constructive living. These concepts were interrelated and when change occurred in one, it effected a change in the others. Ideally, nurses' participation in relationships with patients would "promote learning and change, rather than reinforce pathology in the direction of chronicity" (Peplau, 1989, p. 97). The nurse-patient relationship moved the patient into growth, which moved the patient toward health (Forchuk, 1993). When change occurred in the nurse-patient relationship, it effected a change in the patient outcome. This key concept guided the examination of the practice patterns of NPs that may be related to positive patient outcomes.

Review of Literature

A study by Mundinger and associates as reported in JAMA, January 5, 2000, is one of the first to compare the patient outcomes of the NP with the physician in equivalent settings. Already in place was the Center for Advanced Practice, a clinic opened in 1993, staffed exclusively with NP faculty. The New York State law already allowed collaborative NP practice with a quarterly physician meeting, full NP prescriptive authority, and equal reimbursement by Medicare. The medical board at the hospital granted the faculty NPs hospital admitting privileges with equal responsibility for productivity and coverage. In the clinic, the NP's schedule was similar to the physician's schedule in a similar clinic in the same community not having an emphasis on prevention with longer appointment times. These conditions made possible the comparison of patient outcomes with a more equal basis of practice than any previous study. The study was conducted with over 1300 patients between August 1995 and October 1997 and used a 6-month follow up interview. The results strongly supported the hypothesis, "using the traditional medical model of primary care, patient outcomes for nurse practitioner and physician delivery of primary care do not differ" (Mundinger et al., 2000, p. 68). An editorial by Sox (2000) states, "This study is a remarkable accomplishment, the most ambitious and well-executed comparison of nurse practitioners with physicians" (p. 107).

A 2 year follow up to the study by Mundinger and associates was completed by Lenz, Mundinger, Kane, Hopkins and Lin (2004). Their report supports the conclusion that NP and physician patient outcomes were equivalent. The patients of both NPs and physicians reported similar levels of health status, satisfaction of care, utilization of specialists and emergency/urgent care, and frequency of hospitalization. The report suggests further research to examine the practice differences between NPs and physicians.

Establishing and clarifying the differences in practice are the keys to success for nursing, according to Mundinger (2002). With past studies emphasizing the sameness of NP and physician practices and outcomes, her recommendation is to point to the different style of practice offered by the NP. She emphasizes the importance of distinguishing the nursing profession for differences rather than sameness in order to provide the groundwork for partnership rather than competition between the two professions.

A study done in the United Kingdom by Myers, Lenci and Sheldon (1997) concluded that NPs can safely and effectively care for urgent medical problems. This study included 1,000 patient outcomes in the London suburbs with patients choosing to see a physician or NP. The conclusion of the study was that NPs can safely and effectively provide care for primary care patients with urgent medical needs. It was discussed in this study that the NPs had a different style of care, including “a more holistic approach,” “attitudes and skills different from those of the doctors” and “a different style of listening and communication skills”. This study suggested comparison studies of physician and NP management styles to help clarify their differences.

In 1997 a comparison study between NPs and junior doctors was done (Sakr et al., 1999). The term, junior doctor, was defined by the British Medical Association as the time between medical school graduation and the attainment of the status of consultant. In this study over 1,400 patients with minor injuries in the emergency room were treated by either an NP or junior doctor. The outcomes were determined by an experienced emergency physician doing a separate assessment following the NP or junior doctor. Questionnaires were also used to assess patient satisfaction, degree of recovery, and the need for further treatment. The conclusion of this study was that the NPs were “a safe alternative to junior doctors for the care of patients with minor injuries” (Sakr et al., 1999, p. 9). This study found that the NPs were more accurate in taking the

medical history and spent more time with assessment. However, it demonstrated that NPs were less accurate in their examination.

The Kinnersley et al. (2000) study in the United Kingdom compared differences in NP and physician care for 1,300 patients with same-day appointments. There were no significant differences between the NP and physician patient outcomes. There was increased patient satisfaction with the NP patients which was correlated to longer consultation times and more information provided to the patient. The information given to patients included the cause of illness, methods to relieve symptoms, a plan if symptoms persisted, expected length of illness, and prevention measures for recurrences. In conclusion, the study supported the NP as a provider to patients requesting same-day appointments.

Moody, Smith and Glenn (1999) compared the practice patterns of NPs and physicians and found that the actual length of patient appointments was similar. The NPs provided more patient education, had younger female patients, and did fewer outpatient surgical procedures than the physicians. In conclusion, the health care provided by the NP was similar to that of the physician.

Reveley (1998) studied a group practice in England for the differences and similarities between a triage NP and physicians in 1994. It was found that the NP consultations were longer, the physicians saw more patients, and the patients of the NP were younger. Evaluations by the patients included appreciation for the NP accessibility, longer consultation time, more patient education, and satisfaction with the consultation.

A difference between NP and physician assessment was found in the Torn and McNichol (1998) study. The NP assessment looked at more than the presenting symptoms and into the underlying problem. Although the NP and physician consultation times were similar, the patients

perceived the NP as easier to talk to and they felt more relaxed. Also, the NP was more likely to give the patient a choice about their health care decisions.

In the Lawson (2002) study, NPs and physicians were compared for communication styles. Both providers used predominantly an informational style of communication and the NPs used a more controlling style with some patients. The communication styles were not associated with patient satisfaction or patient-perceived autonomy. The study suggested continued examination of NP communication with patients to define how they might account for changes in health status and quality of care.

A recently developed tool, the Jefferson Scale of Physician Empathy, was used in a comparison study of female NPs, pediatricians, and hospital-based specialists (Hojat, Fields & Gonnella, 2003). This was the first study to compare the empathy of NPs with physicians. The results concluded that the primary care providers (NPs and pediatricians) scored higher for use of empathy than the hospital-based specialists.

A study of NP, PA, and MD practice styles relating to patient outcomes was done in a military setting by Mark, Byers and Mays (2001). Providers' self-ratings of practice styles were correlated with patients' self-ratings of health status, functional status, information seeking, and satisfaction. The results were that neither the practice style nor provider type influenced patient outcomes.

The Druss, Marcus, Olfson, Tanielian and Pincus (2003) study examined 10 categories of non-physician clinicians and found that the proportion of patients seeking care from non-physicians had risen from 30.6% in 1987 to 36.1% in 1997. Physician only and non-physician only services declined while the combination of both physician and non-physician services

increased from 23.5% to 30.9% during this time. The study calls for a collaborative effort to measure, understand, and optimize the integration of services from these providers.

To investigate the clinical practice of advanced practice registered nurses (APRNs), a practice-based research network, APRNet, was formed in September 2000 (McCloskey, 2003). This group of 68 APRNs and their practices will participate in future studies about the organization, costs, services billed, and clinical outcomes of APRN practice. This was the first APRN research network providing a setting to receive direct information from nurse practitioners for future studies.

The review of the literature supported NP and physician equivalent patient outcomes with different practice styles. Peplau (1989) suggested a correlation between the nurse-patient relationship and patient outcomes. For a better understanding of equivalent patient outcomes with different educational requirements for these providers, this study focused on the NP practice style by examining practice patterns in a self-report survey.

Methodology

Design

This study used a quantitative, descriptive design. The goal was to rank the practice patterns of NPs and identify NPs' perceptions of the most important practice patterns that contribute to positive patient outcomes. Demographics, the NP's experience with equal patient outcomes, advanced practice education, and patient distribution according to severity of illness were addressed with multiple choice answers.

Sample Population

The target population for the survey was all NPs (N = 535) who attended the California Association for Nurse Practitioners (CANP) Conference in 2005. A convenience sample of NPs

was those who were willing to participate in the survey. Of the 131 surveys distributed, 117 surveys were returned. Only the returned surveys that were completed as instructed were included in the final analysis (n = 93).

Human Subjects Protection

Approval for the study was obtained from the Institutional Review Board at San Jose State University and the CANP Executive Committee. Return of the completed surveys implied consent to participate. No name or personal identification information was included on the cover letter (Appendix B) or survey. The surveys were destroyed at the completion of this study. There were no known risks for the participants in this study.

Instruments

No previously developed instruments were found that were applicable to this study, and no previous studies ranked the practice patterns of NPs. Therefore, a self-report survey instrument was developed specifically for this study to rank the practice patterns of NPs. The instrument used was not evaluated for reliability or content validity.

The researcher conducted a pilot study prior to the distribution of the survey at the conference. Four advanced practice nurses and one physician assistant completed the pilot survey. The participants came from a variety of practice settings, including two family practices, two pediatric practices, and one women's health practice. The researcher hand-carried the survey to the participants and remained available during completion of the survey. The results guided revisions in the pilot survey instrument and the final survey was elicited. The pilot study results were not included as part of the final study.

The survey (Appendix A) was developed based on the practice patterns associated with positive patient outcomes as discussed in the literature review, Peplau's (1989) interpersonal

theory, and information obtained in the pilot study. The 10 practice patterns chosen were listed with instructions to rank them in the order of importance to positive patient outcomes. The ranking of the practice patterns was designed to identify NP beliefs about the most important practice patterns as well as the least important practice patterns for positive patient outcomes. The purpose of identifying these practice patterns was to help describe the distinctive practice of advanced practice nursing.

The first section of the survey contained four questions that elicited demographic information about the practitioner: description of practice setting, age, gender, and years in advanced practice nursing. The second section of the survey included four questions asking for the NP's opinion regarding equal patient outcomes in their practice, their advanced practice education, and the distribution of patients for severity of illness in their practice. The third section listed 10 practice patterns that were described as important to positive patient outcomes and gave instructions to rank the importance of these practice patterns in their practice.

Data Collection Methods

Individual folders, with a cover letter (Appendix B) and survey inside, were distributed in the exhibit hall at the CANP conference to the NPs willing to participate in the survey. The participants were asked to return the folder to the research project box by the end of the conference. There were 131 surveys distributed. Of the 117 surveys returned, 24 surveys were not filled out as instructed in the rank order section. There were 93 returned surveys used for data analysis.

Data analysis methods and findings

The frequency and percentage were obtained for each answer in the surveys (n = 93). The ranking of the practice patterns was obtained from the frequency and means calculated for each practice pattern. The following tables display the findings for each question with a brief summary of the most frequent answers

Demographic Section

Table 1

Practice Setting Frequencies

Practice Setting	Frequencies	Percent
Adult	19	20.4
Family	33	35.5
Gerontology	9	9.7
Acute Care	3	3.2
Pediatric	3	3.2
Occupational	1	1.1
Womens Health	11	11.8
Other	14	15.1
Total	93	100

Table 1 frequencies showed that about 56% of NPs surveyed practiced in Family and Adult settings.

Table 2

Age Group Frequencies

<u>Age Group</u>	<u>Frequency</u>	<u>Percent</u>
<30 Years	5	5.4
30-39	9	9.7
40-49	28	30.1
50-60	39	41.9
>60 Years	10	10.8
Total	91	97.8
<u>No Response</u>	<u>2</u>	<u>2.2</u>
<u>Total</u>	<u>93</u>	<u>100.0</u>

Table 2 frequencies showed that about 83% of NPs surveyed were ≥ 40 years in age.

Table 3

Gender Frequencies

<u>Gender</u>	<u>Frequency</u>	<u>Percent</u>
Female	85	91.4
Male	4	4.3
Total	89	95.7
No Response	4	4.3
<u>Total</u>	<u>93</u>	<u>100.0</u>

Table 3 showed that about 91% of NPs surveyed were female.

Table 4

Frequencies for Years in Advanced Practice

<u>Years in APN</u>	<u>Frequency</u>	<u>Percent</u>
<5Years	28	30.1
5-10 Years	35	37.6
10-20 Years	15	16.1
>20 Years	13	14.0
Total	91	97.8
No Response	2	2.2
<u>Total</u>	<u>93</u>	<u>100.0</u>

Note: Two of the answers included 10 years. Only the “5-10 years” category was used in calculating the ≤ 10 year percentage.

Table 4 showed that about 68% of NPs surveyed have ≤ 10 years in advanced practice nursing.

The demographic section showed the majority of participants were female, over 40 years old, and in a general advanced practice for 10 years or less. This corresponds to the National Sample Survey of Registered Nurses statistics in 2000 with 94.6% female nurses, 68.3% ≥ 40 years old, and an increase in NPs since the 1996 statistics (Health Resources and Services Administration, 2000).

Opinion Section

Table 5

Equal Outcomes Opinion Frequencies

<u>Equal Outcomes</u>	<u>Frequency</u>	<u>Percent</u>
Yes	75	80.6
No	6	6.5
Not Sure	12	12.9
Total	93	100.0

Note: Two surveys answered 'no' with a hand-written explanation that their patient outcomes were better than the physician. Those two answers were changed to 'yes' to reflect the hand-written explanation.

Table 5 showed about 81% of NPs surveyed reported that they have at least equal patient outcomes compared to the physicians in their practice.

Table 6

Opinion of Advanced Practice Education Frequencies

<u>Education Prepared</u>	<u>Frequency</u>	<u>Percent</u>
Yes	71	76.3
No	16	17.2
Not Sure	6	6.5
Total	93	100.0

Table 6 showed about 76% of NPs surveyed reported that their advanced practice education prepared them to begin patient care.

Table 7

Opinion of Distribution of Patients Frequencies

<u>Distribution of patients in your practice</u>	<u>Frequency</u>	<u>Percent</u>
Physicians see more severity of illness	17	18.3
NPs see more severity of illness	1	1.1
Physicians and NPs see about the same	59	63.4
Does not apply	15	16.1
Total	92	98.9
No Response	1	1.1
Total	93	100.0

Table 7 showed about 63% of NPs surveyed reported seeing patients with about the same severity of illness as the physicians in their practice.

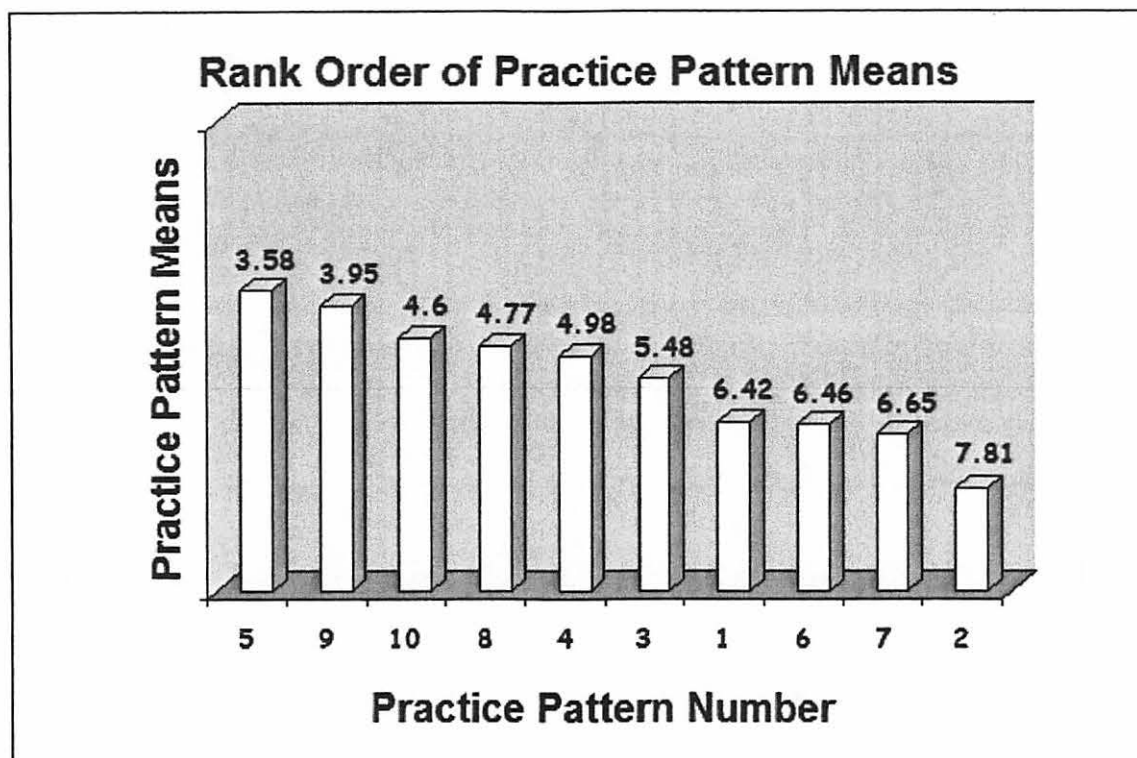
The opinion section frequencies showed the majority of NPs surveyed reported their advanced practice education was adequate, that they have at least equal patient outcomes compared to the physicians in their practice, and that they see patients with about the same severity of illness as the physicians in their practice.

Ranking Section

The mean and standard deviation were calculated from the frequencies for each practice pattern and the results are displayed with the following table:

Practice Patterns in Random Order for Instrument	N	Mean	Std. Deviation
1 EXPERIENCE PRACTICING AFTER FORMAL EDUCATION	93	6.41	3.251
2 USING PRACTICE PROTOCOLS	93	7.84	2.845
3 SPENDING MORE TIME WITH PATIENTS DURING APPOINTMENTS	93	5.56	2.752
4 USING A HOLISTIC APPROACH IN PATIENT CARE	93	4.99	2.980
5 INCLUDING PATIENT IN DECISIONS AND GOAL-SETTING	93	3.65	2.259
6 COLLABORATING WITH OTHER PROVIDERS	93	6.47	2.315
7 PARTICIPATING IN CONTINUING EDUCATIONS: INCLUDING READING CURRENT JOURNALS, COURSES, CONFERENCES	93	6.67	2.447
8 PROMOTING HEALTHY LIFESTYLE IDEAS-PREVENTING HEALTH PROBLEMS	93	4.74	2.391
9 EDUCATING PATIENTS REGARDING THEIR ILLNESS-PATHOLOGY	93	4.00	1.956
10 SHOWING ATTRIBUTES OF CARING AND NURTURING	93	4.68	2.512

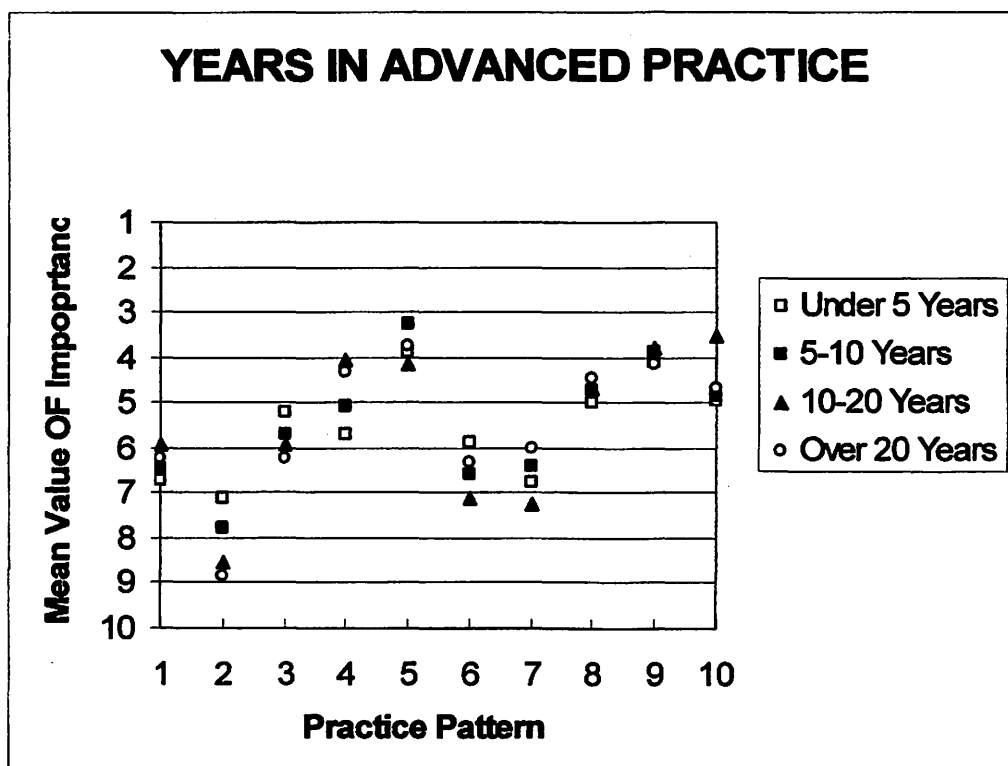
The following histogram displays the ranked practice patterns from most important to least important to positive patient outcomes:



- 5 Including the pt in decisions and goal-setting
- 9 Educating pts regarding their illness/pathology
- 10 Showing attributes of caring and nurturing
- 8 Promoting healthy lifestyle /preventing health problems
- 4 Using holistic approach in pt care
- 3 Spending more time with patients during appointments
- 1 Experience of practicing after formal ed
- 6 Collaborating with other providers
- 7 Participating in continuing ed
- 2 Using practice protocols

Results indicated the highest ranked practice pattern is also the practice pattern involving the most patient participation. The next five practice patterns involved direct interactions with the patient. The last four practice patterns did not involve any patient interaction, but were practice patterns utilized by the NP for professional purposes, which indirectly affected patient care.

The practice pattern means were computed for the four answer groups of the question regarding "years in advanced practice." The mean for each practice pattern was grouped by years in advanced practice and plotted on the following graph:



This comparison indicates the means of each practice pattern follow the same basic order in each group. This suggests that the most important and least important practice patterns follow the same pattern regardless of the years of advanced practice nursing.

A correlation matrix was done for the 10 practice patterns and the “years in advanced practice nursing” question using the Pearson Correlation, significant at the 0.05 level (2-tailed). Practice pattern 2 (using practice protocols) was the only practice pattern that had a significant inverse correlation with the “years in advanced practice nursing.” This means that the results of this survey show that for these NPs the more years spent in advanced practice nursing the less likely that using practice protocols is an important practice pattern. Practice pattern 2 (using practice protocols) also ranked the least important in the descriptive statistics of practice pattern means. This result showed practice pattern 2 as least important overall for all participants.

The practice setting demographics were divided into two groups, Group 1: adult and family practice settings, and Group 2: all other practice settings. The practice pattern means were calculated for each group and the t-test was used to determine any significance in the 2-tailed data. Significance at the .05 level was found with practice pattern 8 (promoting healthy lifestyle ideas and/or preventing health problems). This demonstrates that Group 1 (adult and family practice settings), rated the practice pattern, “promoting healthy lifestyle ideas and/or preventing health problems” significantly higher than Group 2 (all other practice settings).

Limitations/recommendations

This survey was only available to the NPs in California attending the CANP conference in 2005 and cannot be used to encompass all practicing NPs. It would be valuable to conduct a similar study to include a wider geographical area.

This study used a self-report survey that was not tested for reliability and validity. The researcher recommends future studies to include testing for reliability and validity.

Many of the participants completed the survey in the exhibit hall at the conference and may not have taken time to fully concentrate on the ranking of the practice patterns. In addition

almost 20% of returned surveys were not completed as directed for ranking the practice patterns. This suggested to the researcher that perhaps the instructions were not clear enough, or that 10 practice patterns was too many to rank, or perhaps the practice patterns were all too close in importance for some to differentiate.

The result of the correlation study, inversely correlating the protocol practice pattern and the years in practice, was a significant finding. It seems logical that the information provided in protocols becomes inherent in the experienced provider, thus making a written protocol less important in their practice. This deserves further study in the future.

The result of the t-test comparing different practice settings with the practice pattern, promoting healthy lifestyle ideas and/or preventing health problems, was a significant finding. The researcher considered that Group 1 (adult and family practice settings) rated the practice pattern significantly higher because it had a more general practice setting than Group 2 (all other practice settings). General practice may provide a greater opportunity for promoting healthy lifestyle ideas and/or preventing health problems. Further study is recommended.

Discussion

It was the hope of this researcher to clarify the most important practice patterns used by currently practicing NPs in an effort to distinguish the identity of advanced practice nursing. Since advanced practice nurses have education different from the traditional medical model, it seemed rational to expect a different way of practicing. By examining the practice patterns and establishing the most important patterns to positive patient outcomes, a step was made toward describing the unique process by which NPs have equal patient outcomes as described in the literature.

For the study, 10 practice patterns were chosen as important to positive patient outcomes. The participants ranked the 10 practice patterns for importance in their practice. The rank order results demonstrating the NP as a patient-centered provider is impressive. The highest ranked practice pattern, including the patient in decisions and goal-setting, involves the patient in decisions for care. All of the next five practice patterns involve direct patient interaction, including patient education, preventive care, holistic approach, attributes of caring, and time spent during appointments. The last four practice patterns (the lowest ranked) did not involve any patient interaction, but indirectly affected patient care by addressing professional considerations. The flow from most patient-centered to least patient-centered practice patterns paralleled the ranking of the practice patterns from most important to least important to positive patient outcomes of NPs. This observation is a step toward describing the advanced practice nurse as a unique patient-centered provider.

The ranking of the 10 practice pattern means was reaffirmed when the sample results were replicated within the subgroup, years in advanced practice nursing. Analyzing the practice pattern means for each group of "years in advanced practice nursing" showed the ranking followed a similar pattern from most patient-centered to least patient-centered. These results indicated that the NP continues to be a patient-centered provider, regardless of the years in practice.

The six most important practice patterns of this study were already linked to positive patient outcomes in the literature review. This strengthened the results of the mean rank order for most important practice patterns. In addition, these current study results support the literature review for future research.

Applicability to Nursing

The study of practice patterns relating to positive patient outcomes is important to the NP profession because these patterns may distinguish the unique practice of NPs. As the role of the NP continues to expand and be further defined, these practice patterns will provide evidence of the distinctive quality of care given by the NP profession. A goal of this study was that the findings may form a basis upon which further studies can be conducted to examine the practice patterns that are characteristic of the health care provided by NPs.

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Spring 2005 CANP Conference**Survey of Nurse Practitioners: Practice Patterns Contributing to Positive Patient Outcomes**

Place this completed survey into the box in the registration hallway marked: Bandy Research Project

Circle the letter that describes you in your NP practice.

1. Indicate which of these practice settings would describe your practice setting at this time. Circle only one choice.

- | | | |
|----------------|---------------|------------------------------|
| a) Adult | d) Acute care | g) Psychiatric/mental health |
| b) Family | e) Neonatal | h) Occupational health |
| c) Gerontology | f) Pediatric | i) Women's health (OB/Gyn) |
| | | j) Other |

2. Age:

- a) Under 30 yrs b) 30-39 yrs c) 40-49 yrs d) 50-60 yrs e) Over 60 yrs

3. Gender: a) Female b) Male

4. Years in advanced practice nursing:

- a) Under 5 years b) 5-10 years c) 10-20 years d) Over 20 years

Circle the letter that best represents your opinion on the following questions.

1. Recent studies have concluded that nurse practitioners have equal patient outcomes compared to physicians. In your professional practice, is this true?

- a) yes b) no c) not sure

2. Was your education to prepare you for advanced practice nursing adequate to begin patient care?

- a) yes b) no c) not sure

3. Describe the distribution of patients in your practice?

- a) The physicians see patients with more severity of illness.
 b) The nurse practitioners see patients with more severity of illness.
 c) Physicians and nurse practitioners see patients with about the same severity of illness.
 d) This distribution of patients does not apply in my practice.

Practice Patterns Contributing to Positive Patient Outcomes by Nurse Practitioners
Kandice Bandy, MS Nurse Practitioner Student, FNP

Your Practice Patterns

All of the following practice patterns are important to positive patient outcomes. Please **rank the importance** of these practice patterns in your practice. **Number from 1-10 (no number should be used more than once).**

1 = 'most important'

10 = 'least important'

- _____ Experience of practicing after formal education
- _____ Using practice protocols
- _____ Spending more time with patients during appointments
- _____ Using a holistic approach in patient care: considering social, spiritual, emotional, mental and physical status of patients
- _____ Including the patient in decisions and goal-setting
- _____ Collaborating with other providers
- _____ Participating in continuing education: including reading current professional journals, taking courses, and attending conferences
- _____ Promoting healthy lifestyle ideas and/or preventing health problems
- _____ Educating patients regarding their illness/pathology
- _____ Showing attributes of caring and nurturing

Thank you for your participation.

Place this completed survey into the box in the registration hallway marked: Bandy Research Project.

Appendix B

Dear Nurse Practitioner:

As a family nurse practitioner student at San Jose State University, I am conducting a research study titled, "Practice Patterns Contributing to Positive Patient Outcomes by Nurse Practitioners." You have been selected to participate in this study by completing the following survey exploring your practice and practice patterns.

Please complete the following two-page survey and place it in the box marked "Bandy Project" in the registration hall. The time to complete the survey is about 10-15 minutes.

Your consent is being given voluntarily. You may refuse to participate in the entire study or in any part of the study. Completion of the survey will provide implied consent to participate. **You may retain this cover letter for your records.**

Your name or other personal identification is not required and anonymity will be maintained. Although the results of this study may be published, no information that could identify you will be included. There is no risk anticipated for the participants in this study. No compensation will be awarded for your participation nor are there any foreseeable direct benefits for you. No service of any kind, to which you would otherwise be entitled, will be lost or jeopardized if you choose to "not participate" in this study.

Requests for the results of this study or any questions or comments about this survey can be addressed to Kandice Bandy at [REDACTED]. Complaints about the survey may be presented to Elizabeth O. Dietz, Ed.D., RN, CS-NP, Professor/Nurse Practitioner, San Jose State University School of Nursing, [REDACTED]. Research subjects' rights or research-related injury questions may be presented to Pam Stacks, Ph.D., Associate Vice President, Graduate Studies and Research, at [REDACTED] [REDACTED].

I greatly appreciate your time and effort to participate in this study.

Thank you,

Kandice Bandy, R.N., B.S.

M. S. Nurse Practitioner Student, FNP