EVALUATING THE LEVEL OF PERFORMANCE WITH PATIENT CARE STANDARDS IN PRIMARY NURSING

BY

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The health care industry is changing rapidly and is restructuring itself to respond to the "high touch" needs of its consumers in addition to their "high tech" needs (Naisbitt, 1982). Hospital organizations are re-directing their energies to a product-line orientation in which the product is quality patient care with a humanistic touch. Because nurses are educated in the science and art of patient care, they are in a particularly unique position to guide this process.

A recent study of nursing administrators identified their research questions of high priority. A common theme among the 20 questions identified was the need for nurses to practice nursing within a model that promotes accountability for the standards of the profession while at the same time maintaining quality patient care in a productive, cost-effective, satisfying manner (Henry, Moody, Pendergast, O'Donnell, Hutchinson, & Scully, 1987).

A number of models of nursing practice have evolved through the years. Each nursing care delivery model defines a particular structure or context within which the nursing care process (assessment, planning, intervention, and evaluation) is carried out to produce some level of quality patient care. Thus, the process is similar for all models. However, in most models accountability for patient care is diffuse; shared in such a way that one nurse cannot be held accountable.

The primary nursing professional practice model has been said to evolve as a result of this deficit in other nursing practice models (Logsdon, 1973). Developed by Manthey, primary nursing has been generally accepted to include 24-hour accountability, authority, and autonomy for a small group of patients' plan of care, care delivery, and outcomes of care (Ciske, 1974; Manthey, 1970, 1980; Zander, 1980). Accountability for patient care outcomes is the surrogate for nurses fulfilling their social contract to society from whom they receive the power to practice (ANA, 1980).

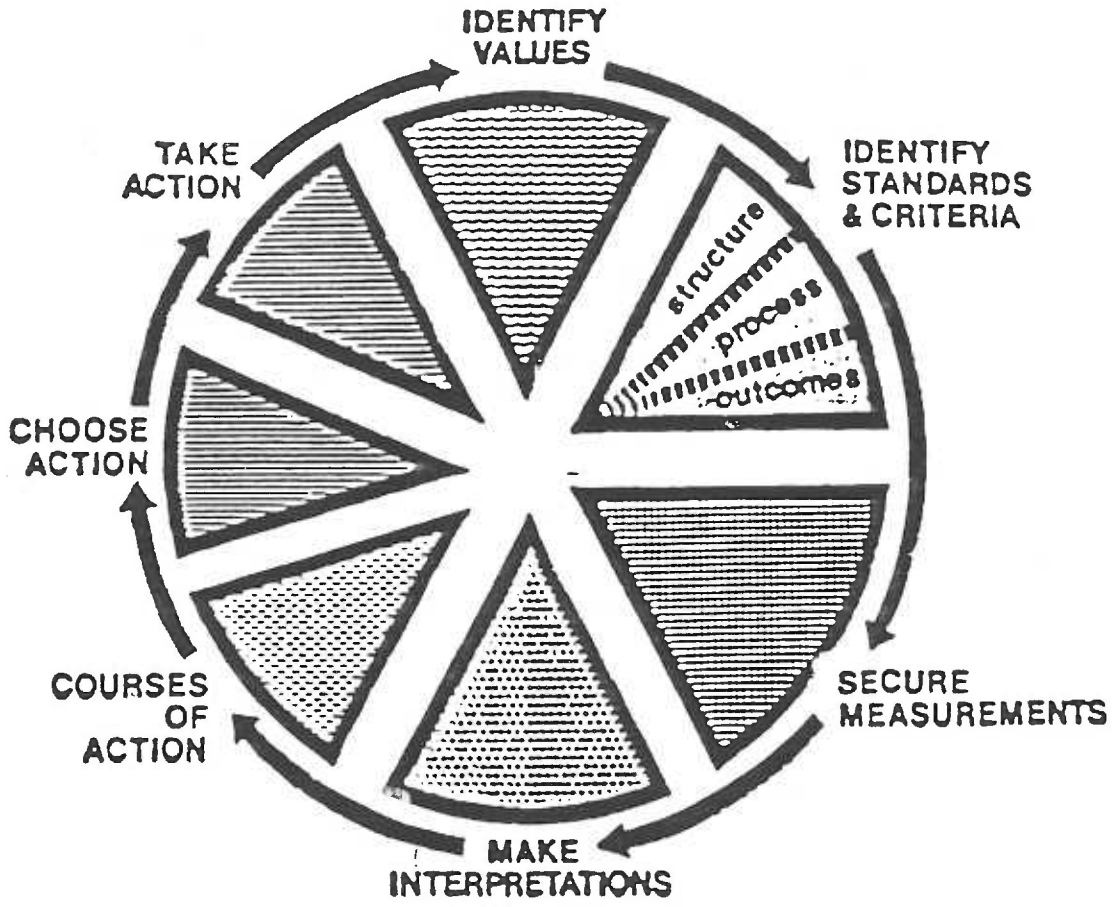
The objectives of primary nursing as outlined by Manthey include continuity of care, care planning, discharge planning, care conferencing, consultation and collaboration. While these are not inconsistent with the objectives of other models, it is hoped that the philosophy and structure of primary nursing increase the likelihood that these objectives are carried out. The objectives which are particularly highlighted in primary nursing and which are consistent with professional behaviors identified by professional leaders and practitioners across the country include: nursing process, continuity of care, care planning, discharge planning, care conferencing, consultation and collaboration (Behrend, Finch, Emerick, & Scoble, 1986; Ciske, 1974; Manthey, 1970; Zander, 1980).

While primary nursing has been accepted as effective in general (Corpuz, 1977; Culpepper, Richie, Sinclair, Stephens, & Betz, 1986; Giovannetti, 1980; Hegedus, 1980; Kent & Larson, 1983; Steckel, Barnfather, & Owens, 1980), effectiveness may vary between settings due to institutional factors such as how it is operationalized, staffed, and enforced. It is imperative therefore that each nursing department or unit evaluate its level of performance within the primary nursing model. Unfortunately, there are no explicit performance levels against which an organization can evaluate its primary nursing practice standards. As has been the case with other nursing practice models, the primary nursing model was implemented before the performance levels were developed and evaluated. The performance levels are in effect being developed from practice. However, in the absence of explicit levels an organization can evaluate itself against normative data that is available. In addition to assisting the organization make decisions, such an evaluation can facilitate the development of performance levels for standards by increasing the amount of data available.

Conceptual Framework

In evaluating the effectiveness of primary nursing within an organization the American Nurses' Association (ANA) version of the quality assurance conceptual model seems appropriate. See Figure 1

Figure 1. Nursing quality assurance model



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(ANA, 1976). Concepts of the ANA model were first introduced by Donabedian (1966) and include the quality assurance concepts of structure, process, and outcomes. In the adapted ANA quality assurance version, major components of the model include: identifying values (basis for standards), identifying structure, process, and outcomes standards; establishing criteria to operationalize standards; securing measurements needed to determine the level of compliance with standards; making interpretations; identifying alternative courses of action; deciding on a course of action; and taking action. Strengths of the model include its circular relationship of activities to demonstrate the cyclical nature of the review process including a re-evaluation of the values and criteria as a result of the data analysis. Another strength of the model is that it allows for the use of structure, process, and outcome methods in evaluating the quality of patient care (Meisenheimer, 1985).

As illustrated in Figure 2, structure refers to the purpose and organization of patient care. Consistent with the ANA quality assurance model, structure refers to the mission of the organization and the philosophy or context within which the patient care is delivered. Structural variables in primary nursing generally accepted as the national standard include 24 hour accountability,

Figure 2. Integration of quality assurance and primary nursing.

STRUCTURE	Organizational structure Size of nursing staff Qualifications of nursing staff Nursing practice model: primary nursing *Primary nurse has 24 hour accountability, authority, and autonomy for patient care plan.
PROCESS	Patient care: *Assessment Physical Psycho-social Medical history *Planning *Collaboration *Nursing coordination of care Nursing diagnosis Goal setting *Intervention Administration of care Patient and family teaching *Continuity of care *Discharge planning *Evaluation
OUTCOMES	Patient (and family): Satisfaction Level of quality care Comfort Cost Nurse: Job satisfaction Perception of professionalism Retention/turnover rate Autonomy Stress Organization: Cost effectiveness Satisfaction Productivity

*OBJECTIVES OF PRIMARY NURSING

authority, and autonomy by one nurse for the plan of care for a small group of patients (Ciske, 1974; Manthey, 1970, 1980; Zander, 1980).

In general, process refers to the nature and sequence of events as well as the activities of patient care including assessment, planning, intervention, and evaluation (Yura & Walsh, 1974). These operational or process variables are generally accepted to include assessment activities such as physical exam, psycho-social status, and health history; care planning activities such as collaboration, nursing coordination of care, and discharge planning; intervention activities such as continuity of care, administration of care and procedures, and patient/family education; evaluation of patients' response to care (Ciske, 1974; Manthey, 1970, 1980; Zander, 1980).

Outcomes pertain to the end results of the process of patient care and can be defined for patients, nursing staff and for the organization. Patient outcomes include satisfaction, quality of care, comfort, and cost. Outcomes for nurses include job satisfaction, perception of professionalism, autonomy, and stress. Outcomes for the organization include cost effectiveness, satisfaction, retention/turnover rate, and productivity.

These concepts are relational in that the structure for patient care delivery influences the process of patient care delivery which influences the outcomes of patient care. Although neither structural

nor process changes guarantee positive patient outcomes, it is unlikely that positive outcomes will occur without compliance with structural and process variables. While this interrelationship suggests the need to look at the structure, process, and outcome variables as a whole (Donabedian, 1980), the components largely have been examined independently.

Although not always explicitly stated, the ANA quality assurance model has been used extensively in nursing to evaluate practice standards of care, individual nurse performance, and programs within a nursing service organizational setting (Corpuz, 1977; Culpepper, et al., 1986; Eichorn & Frevert, 1979; Giovannetti, 1980; Kent & Larson, 1983; Meisenheimer, 1985; Phaneuf, 1976, 1980; Schroeder & Maibusch, 1984; Steckel, et al., 1980; Williams, 1975). For example, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) uses the ANA quality assurance concepts in evaluating the nursing services of organizations nationally (JCAHO, 1985). In addition to its use with nursing models in general, the ANA quality assurance model has been proposed as a method to specifically evaluate primary nursing care (Evans & Brown, 1981; Felton, 1975; Hegedus, 1980).

Literature Review

Previous research on primary nursing has focused on the quality assurance variables of structure, process and outcomes either

independently or in combination. For the purposes of this review, studies will be organized and reviewed by those focusing on *outcomes*, then *structure*, and finally *nursing process*. Performance data will be evaluated in terms of their usefulness as normative data indicating current standards of practice.

Outcome Variables

Outcomes of primary nursing have been evaluated from the point of view of the nurse practitioner, the organization, and the patient. Outcomes for nursing practitioners include their perceptions of professionalism and job satisfaction. Behrend, Finch, Emerick, & Scoble (1986), in an investigative study articulating professional practice behaviors of practicing nurses, found that one's sense of professionalism could be enhanced with primary nursing. The behaviors reflect five major areas of responsibility in professional practice which are consistent with the objectives of primary nursing: nursing process, collaborative practice, leadership, management, and professional development. To the extent these are present, professional nursing is being practiced. Specific values for nursing process variables were not reported since the overall purpose was the classification of professional practice behaviors.

Although studies consistently report that primary nurses have higher job satisfaction than nurses who practiced under other models

(Corpuz, 1977; Giovannetti, 1980; Hegedus, 1980; Kent & Larson, 1983; Toohey, Shillinger & Baranowski, 1985), values have not been reported consistently. Furthermore, the values are hard to compare due to the variety of instruments used to determine satisfaction levels. Kent & Larson (1983) report the only specific job satisfaction data. Using the "Job Satisfaction Inventory" developed to be sensitive to the primary nursing modality of care, the departmental mean was 137.5 with a range of 125.8 to 151.6 out of a possible 192.

The organizational variables which have been studied in relation to primary nursing are productivity, cost savings, and retention rates with primary nursing. Unfortunately, values are not reported (Toohey, et al., 1985). Furthermore costs, although reported to be lower for primary nursing as compared to other models (Felton, 1975; Marram, 1976) are difficult to norm because of different cost accounting procedures.

Research on the relationship between primary nursing and patient centered outcome variables have been limited to 1) patient satisfaction (Daeffler, 1975; Giovannetti, 1980; Steckel et al., 1980); 2) patient stress (Hegedus, 1980); and 3) patient complications caused by nursing (Steckel et al., 1980). In a study of patient satisfaction comparing primary nursing to team nursing, Daeffler (1975) used a checklist, developed by the U.S. Public Health

Service, on patients' perceptions of care. Unfortunately, the small sample size (N=30) for primary nursing makes the study unsuitable for comparative purposes. Giovannetti (1980) used a 24-item Likert scale measurement tool to compare patient satisfaction between a team nursing unit and a primary nursing unit but did not report values. Since previous research has used differing methods of measuring nurse satisfaction and patient satisfaction, a numerical standard of the satisfaction of nurses and patients in general and specifically with primary nursing is therefore not available.

Hegedus (1980) examined patient stress on a primary nursing unit and a team nursing unit at two different measurement times using the Social Readjustment Rating Scale. Values for primary nursing were reported to range from a mean of 313.06 to a mean of 236.84. Sample size is not reported, but is most likely to be too small for normative use since the study was limited to two nursing units.

Steckel et al. (1980) evaluated patient complications caused by nursing using the Horn-Swain health status dimensions tool. Although they reported a difference between primary and team nursing units, the values on specific items were not reported.

Structural Variables

The structural variables of primary nursing have been the least studied concept of the quality assurance model. Bailey and Mayer

(1980) used self-developed instruments to study the primary nurse structural variables of primary nurse assignment and patient identification of their primary nurse. Although they found that in general these variables were being implemented, specific data were not reported. In a descriptive study, Kent and Larson (1983) evaluated three structural variables of their primary nursing system: 1) assignment of primary patients; 2) communication of primary nurse assignment; and 3) categories of nursing staff responsible for primary patients. After eliminating two units because compliance with the structural standards was so low, the ratio of composite mean scores across all units to total possible score for the three structural variables were 14.2/20 (72%) for patients having an assigned primary nurse within 24 hours, 6.5/10 (65%) for professional staff acting as primary nurses, and 7.54/10 (75%) for primary nurses assigned to their patients. The total nursing division mean for compliance with the three standards was 28.2 out of a possible 40 (SD=11.8) (70.5%). The sample size is not reported but the authors indicate the study covered all units of a 350-bed acute care teaching hospital.

Process Variables

Process variables related to primary nursing have been studied more extensively than the other two focuses. The nursing process

variables are generally recognized to be assessment, planning, intervention, and evaluation. These variables have been operationalized to some degree by the tools used to measure the nursing process. Therefore, this section will be organized by the nursing process measurement tools for the purpose of identifying normative data. While nursing process has been evaluated with self-developed tools (Bailey & Mayer, 1980; Kent & Larson, 1983), the most extensive evaluation has been done using three instruments or methods. These three are: 1) the Phaneuf Nursing Audit (Felton, 1975; Williams, 1975); 2) Quality Patient Care Scale or QualPaCS (Eichorn & Frevert, 1979; Felton, 1975; Hegedus, 1980; Steckel et al., 1980; Shukla, 1981; Williams, 1975); 3) the Nursing Process Quality Monitoring Instrument: NPQMI (Corpuz, 1977; Culpepper, et al., 1986).

The Phaneuf Nursing Audit, although used frequently in practice, was reported for only two primary nursing studies (Felton, 1975; Williams, 1975). Following the implementation of primary nursing, Felton (1975) found the mean nursing audit score to be 90.26 out of a possible 200 (range 43.78 to 156.45). This value is within the mid-range of possible scores defined as 0-40: Unsafe; 41-80: Poor; 81-120: Incomplete; 121-160: Good; and 161-200: Excellent. Unfortunately, Williams (1975) did not report specific performance

values. Furthermore, the sample size for the Felton study was limited (N=30).

The QualPaCS nursing process instrument is designed to gather concurrent data using patient-nurse interactions and the medical record as data sources. Mean QualPaCS scores have been reported in studies following the implementation of primary nursing (Eichorn & Frevert, 1980; Felton, 1975; Shukla, 1981; Steckel, et al., 1980). Composite mean QualPaCS scores from the studies listed above are: 3.54 (71%), 3.40 (68%), 3.26 (65%), 3.15 (63%), and 3.36 (67%) based on a 5-point scale with 1 representing "poorest care, 2--between 1 and 3, 3--"average care", 4--between 3 and 5, and 5--"best care". Although Hegedus (1980) used the QualPaCS methodology, mean scores were not reported. Although performance data is available, the QualpaCS methodology requires approximately three hours per subject to administer.

While there were fewer studies reported using the Nursing Process Quality Monitoring Instrument (NPQMI), Medicus requires the users of the Medicus system to report data to the Corporation on a regular basis. These data are available from multiple institutions across the nation and can, therefore, be considered normative or fairly representative of the level of performance of the nursing process nationally. Corpuz (1977) used the methodology to compare

nursing process quality scores across units practicing team nursing with units practicing primary nursing. Unfortunately, these performance scores were not reported. The Medicus methodology was also used by Culpepper, Richie, Sinclair, Stephens, and Betz (1986) in a study designed to identify differences in quality assurance scores pre- and post-primary nursing implementation. Post implementation mean quality assurance performance scores (representing percent) were reported for eight patient care subobjectives believed to reflect aspects of the nursing process most affected by primary nursing when calculated for a sample of patients which ranged from 16 to 21 for each of the subobjectives, the means were equal to 70.75, 76.63, 93.43, 83.23, 78.35, 77.17, 69.08, 76.37 for care plan coordinated, oriented to facilities, social courtesy, privacy honored, communication needs, wellness teaching, family included, and nursing management, respectively. Mean scores for the six major objectives corresponding to the nursing process were 66.00 for care plan developed, 87.02 for physical needs met, 74.11 for non-physical needs met, and 71.39 for objectives evaluated.

Fortunately, performance data corresponding to the components of the nursing process are also reported by the Medicus Systems Corporation (1988). For general medical-surgical units these values were: 68 for assessment and care plan developed, 89 and 78 for

physical and non-physical needs met reflecting the intervention component, and 72 for the evaluation of plan of care.

The NPQMI is the only instrument of those reviewed that has been used with a large number of patients thus creating normative data. In addition, this instrument measures the components of the nursing process and associated patient care activities at a higher level of specificity. Therefore this tool seems the most suitable to measure level of performance specifically of the nursing process. The normative data obtained with this tool allows for the breakdown of patient care activities so that low performance scores can be identified as areas for improvement. The analysis and correction of these areas for improvement is part of the quality assurance process outlined previously.

In summary, the ANA quality assurance model suggests as one of its steps the study of structural, process, and outcome variables. However, because of the lack of normative data with respect to outcome variables, it is difficult to conduct comparative studies.

Therefore, for the purposes of this study only nursing process variables and structural variables related to the implementation of primary nursing were studied. However, because of the lack of normative data with respect to performance outcome variables, it is difficult to conduct comparative studies.

The purpose of the study was threefold: first, to evaluate the extent to which an institution's structural change to the primary nursing professional practice model is being implemented; second, to evaluate the extent to which the nursing process activities are being conducted (with special emphasis upon the activities identified in the institution's 10 standards related to primary nursing); and third to compare the study institution's performance on the nursing process activities to that of other institutions practicing primary nursing. From the quality assurance organizational chart (see Figure 3), it can be seen that the data on performance of the primary nursing standards provides evaluative information useful at many levels of the organization. The data from this study can be used by both staff nurses and nurse administrators for the purpose of decision-making regarding areas of improvement in primary nursing at the study institution. It can also be added to the normative data currently available.

Research Questions

This evaluation addressed three questions related to primary nursing:

1. What is the current level of performance with the nursing process components: assessment, planning, intervention, and evaluation?

Figure 3. Quality assurance organizational chart.

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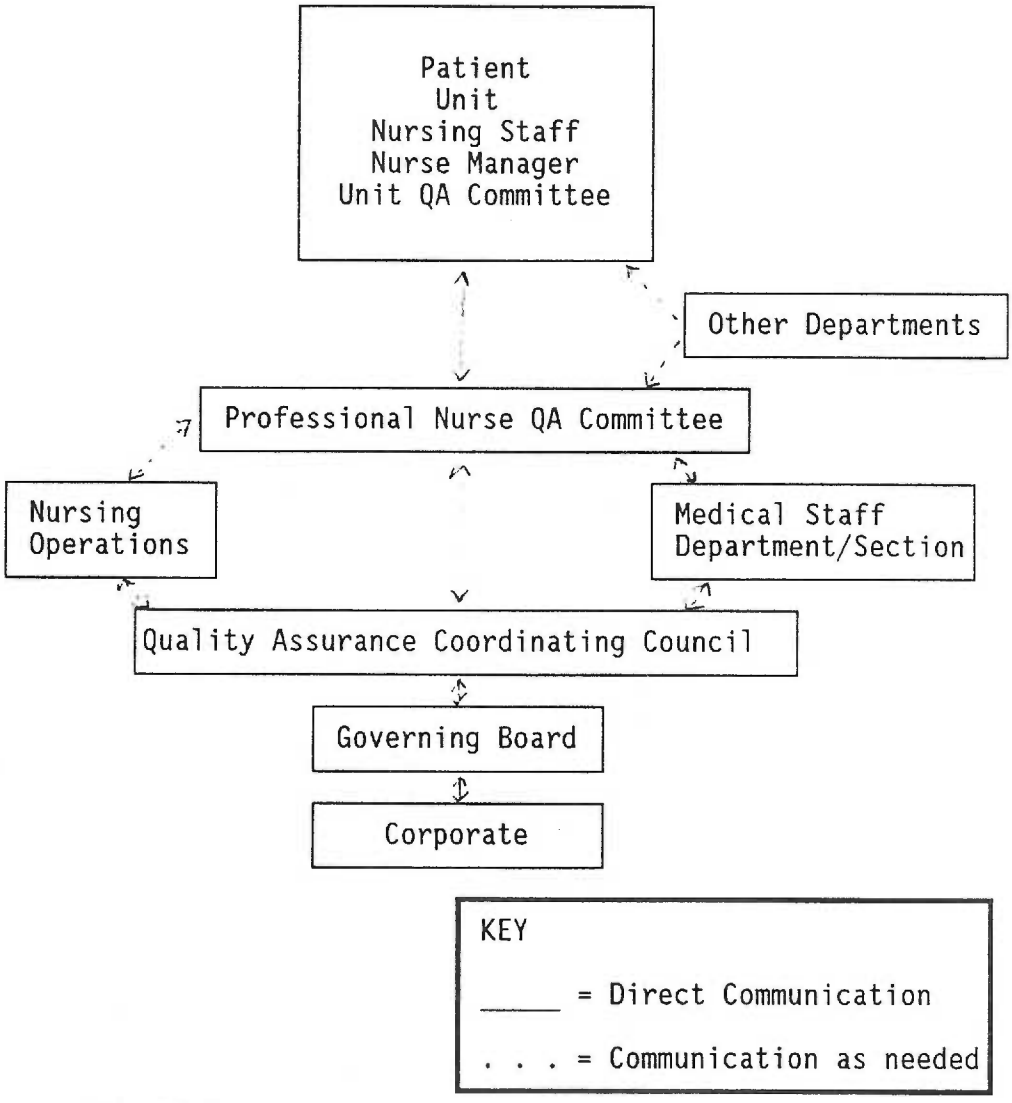
DEPARTMENT OF NURSING

QUALITY ASSURANCE ORGANIZATIONAL CHART



February 15, 1988

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2. What is the current level of performance with the structural and process activities found in the document "Patient Care Standards in Primary Nursing" developed by the institution?

3. How does the level of performance with the nursing process components compare to the level of performance of other institutions practicing primary nursing?

Methods

Design

To answer the questions, a concurrent non-experimental formative evaluation strategy was employed using a questionnaire developed specifically for this study, Primary Nursing Supplemental Questionnaire and the Nursing Process Quality Monitoring Instrument. A combination of patient interviews, staff nurse interviews, medical record review, and direct observations was used to collect data on six general medical-surgical units of a large metropolitan medical center.

Setting and Sample

The site for this evaluation was a tertiary care medical center in a large west coast metropolitan city. Patients from six general medical-surgical units participated in the study. Each unit had between 31-50 patients assigned by diagnostic category. As a whole, the six units include patients with diagnoses related to neurology, orthopedics, urology, gynecology, thoracic, cardiovascular,

cardiology, gastroenterology and general medicine (i.e., infections, diabetes, pulmonary disease). While specialty units should also be evaluated, they were not included in this study because of the different instrumentation which would be necessary to capture the uniqueness within the specialty area.

A range of 7-9 patients were randomly selected from each of the six units for a total sample of 48. Patients were identified in a process by which beds were randomly selected utilizing a random table. Patients in these beds were included in the sample if they met the following criteria: 1) hospitalized for at least 24 hours, 2) over 18 years of age, 3) not in the same room as other patient in the sample, and 4) consented to participate. If a patient refused to participate in the study or did not meet the other criteria for inclusion, the next random bed number was used to select a replacement patient. While the sampling method does not allow for definitive evaluation of each unit, it does allow for representation across all medical/surgical units for aggregate analysis. This method is consistent with the focus of this study, i.e., the overall effectiveness of primary nursing in a single institution.

Patients included 27 females and 21 males. With over 50% of the patients 65 years or older, their ages ranged from 25-87. Based on the institution's system of patient classification by acuity, the average level of acuity was 2.5 on a scale of 1-4 with 1 representing the least acute and 4 the most acute. Over 90% were distributed

fairly evenly between class 2 and class 3 acuity levels. At the time patients were interviewed, their time in the hospital was between 2-50 days with an average of 7.4 days. Fifty-six percent had been hospitalized four or fewer days.

The patients in the normative groups were a sample of patients receiving primary nursing care from 27 institutions during a three-month study period in 1988 and included 530 patients on 48 medical-surgical units. The patients were randomly selected by the particular institution and performance data were sent to Medicus as a condition of continued use of the system. While Medicus shared performance data on these patients, basic demographic data was not made available.

Instruments

To evaluate primary nursing two instruments were used. The first is the Nursing Process Quality Monitoring Instrument (NPQMI) developed by the Medicus Corporation. This instrument was used to evaluate the elements of the nursing process: assessment, planning, intervention, and evaluation. The second is the Primary Nursing Supplemental Questionnaire (PNSQ) developed specifically for this study. It was used to evaluate structural variables and selected process variables not addressed in the NPQMI (see Appendices A and B).

Nursing Process Quality Monitoring Instrument.

First field tested by Hausmann and Hegyvary (1976), the NPQMI

was selected because it has been determined to be an effective, highly reliable and valid instrument accurately reflecting nursing staff performance along the dimensions of the nursing process across all patient acuity levels. With the exception of care conferencing, the Medicus instrument addresses all of the objectives recognized by others (Behrend et al., 1986; Ciske, 1974; Manthey, 1970, 1980; Zander, 1980). Data is obtained from patient interview, nurse interview, medical record review, and unit observation. The original instrument consists of 256 items applicable to medical, surgical and pediatric units grouped by 6 major objectives and 32 subobjectives (see Appendix C). The version used in this study (1.01) was refined by Medicus and is actually 27 different questionnaires. Each questionnaire is specific to one of the four acuity levels ranging from minimal nursing care to complex nursing care needs: five questionnaires for level 1 acuity; seven questionnaires for level 2; eight questionnaires for level 3, and seven questionnaires for level 4. Each questionnaire contains between 40 and 50 items randomly selected from the items in the original instrument which reflect care needs associated with the appropriate level of acuity. Because the purpose of the assessment is to provide an estimate of quality for the aggregate (total institution) rather than individual patient, each patient is administered only one questionnaire. When the data are aggregated across patients all items from the original or parent instrument are represented. The items are grouped to form six major

nursing care objectives of which four were used for this study: 1) Plan of care is formulated: 2) Physical needs are attended; 3) Nonphysical needs are attended; 4) Achievement of objectives is evaluated.

The other two objectives were not used because their focus was administrative, not nursing process.

Content validity of the original instrument was established by a panel of experts including clinical specialists, practicing nurses, nurse leaders, and faculty of nursing institutions. The methodology was further subjected to extensive statistical testing including frequency distributions of responses to assure presence of variability. Correlation analysis was performed to assure homogeneity of items and subobjective scores and to eliminate duplicative items. Cluster analysis was performed to assure items for each subobjective were sufficiently linked to a specific dimension of the nursing process. Although the specific analyses results are not reported, Medicus Systems, Inc. indicated they were acceptable. Items were designed to elicit data related to the performance of specific nursing activities such as developing a care plan, updating the care plan, following the current physician orders, involving patients in their care, etc. Interobserver reliability was consistently between 83-92% (p. 5, Medicus Quality Monitoring Module, 1985).

Primary Nursing Supplemental Questionnaire.

This questionnaire was developed to supplement the NPQMI. It is composed of nine items designed to obtain structure information and six items to obtain process information included in the institutions standards not specifically addressed by the NPQMI. Examples of structural questions include: Was a primary nurse and/or a co-primary nurse assigned to the patient on admission? Was the patient's care plan initiated by the primary nurse? Examples of process questions include: Are patient problems/nursing diagnosis identified on the patient care plan? Is the patient's care plan individualized? Responses to the items are obtained using patient interview, nurse interview, and medical record (see Appendix B for a copy of the instrument). Content validity for the questionnaire was obtained by clinical experts in the study institution.

Operational Definitions

Level of performance.

The level of performance (reported as a performance score) was defined as the degree to which both process and structure standards were implemented for the patients under study. Using the Medicus methodology, response modes of all items were dichotomized into acceptable and non-acceptable performance. To obtain a performance score for each item, the number of acceptable responses were tallied across all patients with all items having equal weight. Therefore the performance score on each item represents the percentage of

patients for whom the nursing activity was performed at an acceptable level.

A large number of items were available to measure level of performance within the nursing process. Therefore, performance scores were calculated for each of the four nursing process components: assessment, planning, intervention, and evaluation. Furthermore, performance scores for major nursing activities within each component were calculated. Performance scores on the major nursing activities (referred to as subobjective scores in relation to Medicus data) were calculated by averaging the performance scores on the items associated with that activity (all items were weighted equally). Component scores were calculated by averaging the sub-objective scores under each of the respective components. For the purposes of analysis the subobjectives in objective one were divided to separate the assessment (subobjectives 1.1, 1.2, and 1.3) and planning (subobjectives 1.4 and 1.5) components. Objectives two and three were combined to produce the intervention component. Objective four corresponds to the evaluation component (see Appendix A for a copy of one of the 27 questionnaires).

Because the items used to calculate performance scores on process standards varied somewhat between research questions, performance scores are further defined by research questions. For question one, performance scores for the nursing process components were calculated from items on both the PNSQ and the NPQMI. The

assessment component contains three NPQMI subobjectives: 1.1-patient condition assessed on admission, 1.2-data relevant to hospital care assessed on admission, 1.3-current condition of patient assessed including items such as need for adaptive devices, mental status, height, medication needs, health history and patient's understanding of condition. The planning component contains two NPQMI subobjectives: 1.4-written plan of care formulated and 1.5-nursing plan of care coordinated with medical plan and four PNSQ items: nursing diagnosis, individualized care plan, patient involvement in planning, coordination care across disciplines, goal setting and collaboration with physician regarding plan of care. The intervention component was measured by the combination of 16 NPQMI subobjectives and one PNSQ item related to discharge process. The 16 NPQMI subobjective items are related to the attention to physical and non-physical needs of patients and include such content as patient teaching, assistance during meals, safety measures explained, patient privacy, clean environment, and RN continuity of care. The evaluation component contains items related to the two NPQMI subobjectives in Major Objective Four. Subobjective 4.1 measures documentation of patient care and subobjective 4.2 measures patient response to care evaluated and includes such items as outcome of MD/RN orders, rationale for PRN medications, patient evaluation of care plan, evaluation of future learning needs and patient evaluation of care given. See Appendix D for a listing of all items and their

corresponding subobjectives and components.

For question 2, process performance scores were calculated from the ten PNSQ items measuring nursing process activities. These items are related to a single specific nursing activity of particular concern to the study institution as defined in their Patient Care Standards in Primary Nursing. See Appendix E for a list of the standards and the corresponding PNSQ items.

For question 3, process performance scores were calculated from items from the NPQMI. PNSQ items were omitted because comparable data is not available on the Medicus sample. Except for the omission of the PNSQ items, performance scores were calculated as described in research question 1.

Structural activities in this study (addressed only in research question 2) were defined as the response to eight PNSQ items directly related to primary nursing. These items cover such activities as assignment of a primary nurse and/or a co-primary nurse to the patient upon admission, and the accountability of specific aspects of patient care by a single primary nurse (see PNS items on PNSQ, Appendix B).

Patient care standards in primary nursing.

This document refers to nine standards developed by the institution participating in the study, St. Vincent Hospital and Medical Center (SVHMC). A total of sixteen structural and process activities are reflected in the nine standards under study: seven

are structural and nine are process. Standard 1 addresses structure only, Standards 3 and 9 address process only, and Standards 2, 4, 5, 6, 7 and 8 address both structure and process. Each activity (process and structure) is measured by a single item. A tenth standard which addresses the administration of the audit process is not evaluated in this study (see Appendix E for a list of the standards and the instrument items which are used to evaluate the structure and process activities within each standard).

Other institutions practicing primary nursing.

For the purposes of this study other institutions is defined as the acute care facilities on whom Medicus performance data are available. Those institutions represent 530 patients from 48 medical-surgical units in 27 acute care hospitals ranging in type from general acute care to university teaching centers and are referred to as the Medicus population in this study (Medicus, 1988).

Data Collection Procedures

Data were collected by two master's prepared nurses in addition to the researcher. The data collectors were oriented to the Medicus system and the supplemental questionnaire in a class conducted by the researcher. To evaluate interrater reliability, the three raters independently completed data collection on three patients. With the exception of patient interview data where only one rater interviewed and the other observed, all data were collected independently. Interrater reliability was calculated by determining the overall

percent agreement across all items on all three patients. This process occurred immediately following the three observations. Where there was disagreement, discussion occurred and instructions for some items were clarified. Initial interrater reliability of 87% was established. When repeated during the mid-point of the study, it was 89%.

Patients selected for the study were approached by the data collectors, informed of the research in progress, and their permission for inclusion sought after the data collector had determined their eligibility for the research. Patients were informed that all patient data would be assured confidentiality in the collection, analysis and results reporting. Following the patient interview, data were gathered from the medical record and the patient's nurse. Data collection took approximately one hour per patient with the patient interview lasting about 10 minutes. Generally, two to three patients per unit were c completed each day of the study period.

Analysis and Discussion

As previously indicated, the level of performance score is the percentage of patients for whom the activity was performed at a satisfactory level. The three research questions were analyzed using descriptive statistics, i.e., frequency distributions, measures of central tendency, and Z-scores.

In the absence of reported numeric standards in the literature,

for purposes of this report, performance scores below 70 are considered unacceptable, defining areas for improvement. Scores of 80 or above are considered commendable. Performance scores between 70 and 80 are considered acceptable. Suggestions for improvement are made for the unacceptable scores.

Research Question 1: What is the current level of performance with the nursing process components: assessment, planning, intervention, and evaluation?

As indicated in Table 1, the scores are acceptable and range from 70.04 for assessment to a commendable 80.00 for planning demonstrating an overall acceptable level of performance. As previously described, the component performance scores were calculated by averaging the subobjective performance scores within each component.

Although the overall level of performance on three components was acceptable and one commendable, closer examination of each component revealed considerable variation in performance scores across subobjectives. With regard to assessment, one subobjective was commendable and two were unacceptable. The low performance of the two subobjectives (condition assessed on admission (69.68) and current condition assessed (58.57) occurred because affective behavior was not documented. On the admission assessment record (used to assess condition on admission) nurses must fill in the blank for emotional status. Similarly, on the 24-hour nursing record where

Table 1

Performance Scores for Components of the Nursing Process

Component	SUBOBJECTIVE Item No:	Item Content:	Percent
ASSESSMENT	1.1	CONDITION ASSESSED ON ADMISSION	69.68
	1.2	DATA RELEVANT TO CARE ASCERTAINED	81.87
	1.3	CURRENT CONDITION ASSESSED	58.57
Average total mean performance level for assessment			70.04
PLANNING	PNP2-1	NURSING DIAGNOSIS/PATIENT PROBLEMS IDENTIFIED	85.42
	PNP3-1	CARE PLAN INDIVIDUALIZED	84.78
	PNP3-2	PATIENT INVOLVED IN PLANNING CARE	51.06
	PNP7-1	CARE COORDINATED ACROSS DISCIPLINES	95.46
	1.4	WRITTEN PLAN OF CARE IS FORMULATED	79.98
	1.5	PLAN IS COORDINATED WITH MEDICAL PLAN	83.31
Average total mean performance for planning			80.00
INTERVENTION	PNP8-2	DISCHARGE PROCESS INITIATED	58.33
	2.1	PATIENT PROTECTED FROM ACCIDENT/INJURY	99.31
	2.2	NEED FOR COMFORT/REST ATTENDED	91.59
	2.3	NEED FOR PHYSICAL HYGIENE ATTENDED	79.96

Table 1 (continued)

Performance Scores for Components of the Nursing Process

Component	SUBOBJECTIVE		Percent
	Item No:	Item Content:	
INTERVENTION	2.4	Need for oxygen supply attended	100.00
	2.5	Need for activity attended	73.02
	2.6	Need for nutrition/fluids attended	61.13
	2.7	Need for elimination attended	100.00
	2.8	Need for skin care attended	93.75
	2.9	Patient protected from infection	77.78
	3.1	Patient oriented to hospital on admit	76.18
	3.2	Patient extended courtesy by staff	81.36
	3.3	Patient privacy and rights honored	75.89
	3.4	Psycho-emotional well being protected	66.08
	3.5	Pt taught health maintenance/illness prevention	53.97
	3.6	Patient/family included in care process	44.71
Average total mean performance for intervention			77.07
EVALUATION	4.1	Records document the care provided	72.97
	4.2	Patient response to therapy evaluated	79.07
Average total mean performance for evaluation			75.41

current condition is assessed, nurses are asked to indicate emotional status. On both forms, descriptors commonly used were cognitive, i.e., alert, oriented, versus affective (such as angry, depressed,apprehensive). It appears that nurses are interpreting emotional states to be synonymous with, or at least to encompass, cognitive
functioning. While it is desirable to have cognitive function documented, it is not generally recognized as reflecting behavioral or emotional status. Therefore it seems important to clarify what emotional behavior means and to make the forms for documentation more specific. The admission assessment form and the 24-hour nursing record could be changed to list common affective behaviors that would cue nurses to address the emotional/behavior aspects of the patient. An educational program addressing emotional/behavioral assessment and how this should be documented might increase the likelihood of this activity being performed for more patients.

For the planning component, four of the performance scores were clearly commendable, one was highly acceptable, and one clearly unacceptable. Factors which appear to contribute to the overall commendable performance include the increased effort and discussion surrounding the care planning function of the nursing staff over the past 6 months. It should be noted there are two factors that may have inflated this overall value. First, nurses realized that care plans were part of the data sources in the study. On several

occasions nurses were observed completing care plans on the study subjects. Furthermore, the department of nursing was preparing for a visit by the Joint Commission for the Accreditation of Healthcare Organizations (scheduled for one month after the completion of data collection) in which care planning, as a major function, was evaluated. However, it is likely that because the observed performance scores are so high that they would have at least been acceptable anyway.

The performance score of 51.06 for patient involved in planning care was clearly in the unacceptable range. While some nurses may in fact be sharing their plans of care with their patients, patients indicated they were not aware of this and did not feel included. This low performance score is most likely a result of the nurse not valuing the time spent to include the patient in the care planning function. One solution might be to have nurses do written plans which could be shared and co-signed by the patient. This may provide the necessary incentive for nurses to include patients in care planning. It would also provide the necessary documentation to support the inclusion of the patient in the process.

With regard to the intervention component, the overall average performance score is 77.07 with six of the 16 subobjectives scores in the commendable range, five scores in the acceptable range, and five scores clearly below the acceptable level. As illustrated in Table 1, four out of the five unacceptable scores are related to non-

physical intervention activities. This is of particular concern since that number represents two-thirds of all the non-physical activities assessed. The activities which have scores below the level of acceptable performance are: patient/family included in care process (44.71); patient taught health maintenance and illness prevention (53.97); discharge process initiated (58.33); need for nutrition/fluids attended (61.13); and psycho-emotional well being protected (66.08).

Explanations for the low performance scores vary by subobjective. It is likely that in the case of "patient included in the care process", "patient taught health maintenance and illness prevention", and "psycho-emotional well being protected", the activities are not being performed consistently by the nursing staff. It is not a question of the activity being done but not recorded. The data for this study were obtained by asking patients directly. The reason for the low performance on the subobjective related to nutrition/fluid needs attended is less clear. It is clear that nurses are not consistently recording the intake and output in the medical record for those patients for whom it is ordered. Nurses say I & O can be monitored without documenting but given the role of documentation in communication to others caring for the patient, one might question whether performance of the act and documentation of the activity can be separated. The low performance score for the discharge planning process initiated by the primary nurse most likely can be attributed

to the system currently in place for discharge planning: most patients are admitted to a pre-surgery unit where assessment of discharge needs is initiated. Patients are then transferred to a medical-surgical unit where they receive their continuing care until discharge. Therefore the initiation of the discharge process takes place before the primary nurse is assigned.

Scores on the two activities measuring the evaluation component are between 70 and 80 which, although acceptable, might be considered for improvement. This component addresses what actually happened to the patient based on what was supposed to happen in terms of medical and nursing orders. Since the performance score on care planning was higher than for evaluation, the lower evaluation component score suggests that nurses are not using care plans to evaluate nursing interventions. Therefore, improving the documentation methods between care planning and evaluation of outcomes in the medical record is essential. In addition, improvement might occur if the nursing staff internalizes the value of evaluating and documenting patient care based on the identified written plan of care.

In summary, the overall performance of the nursing process is acceptable. The specific deficiencies identified in the results are most likely related to one of three factors: 1) the nursing care activities are not being performed due to lack of knowledge or lack of appreciating the value of the activity by nurses; 2) there is a discrepancy in the documentation process between what is actually

occurring in practice and what is documented; 3) there is a systems barrier affecting the process of care delivery. Of the eight unacceptable performance scores, five appear related to the care activities not being performed, two are related to a discrepancy between practice and documentation, and one is related to a systems barrier. Addressing each of these deficiencies will help clarify the strategy most likely to result in improvement. This process may require additional research and/or discussion among the professional and leadership staff, educational programs, or re-design of documentation tools.

Research Question 2: What is the current level of performance with the nine standards "Patient Care Standards in Primary Nursing" developed by the institution?

The level of performance is reported by structure, process, and then by standard. The average performance score for the seven structural activities within the standards is 71. Performance scores range from 17-91 with a median of 70. Three scores are clearly within the commendable range: primary nurse coordination of care; primary nurse provision of continuity of care; and primary nurse provision of patient and family teaching. Three performance scores are unacceptable: primary nurse initiation of discharge planning process; primary nurse collaboration of care; and primary nurse initiation of care plan.

As illustrated in Table 2, the average score across the eight

process elements within the standards is 76, an acceptable performance level. However, performance scores for the process activities range from 50 to 95 with a median of 79; the scores for two activities are unacceptable. Patients and family were involved in teaching only half of the time. Care plans were developed with the patient and family in only 51% of the patients. Overall, the performance scores are fairly consistent with the more comprehensive nursing process performance scores reported in research question 1.

Standard 1 refers to the assignment of 24-hour primary nurse accountability. The primary nurse is only being assigned for 77% of the patients. As noted in the operational definition, it was not possible to determine when the primary nurse was assigned. Therefore the 77% represents patients who had been assigned at the time the data were collected. Since all of the patients had been in the hospital more than 24 hours and some more than eight days, it is highly probable that many of the 77% had been assigned after the 24

Table 2

Comparison of % of Patients Who Received Care Activity with the % of Patients Who Received the Care Activity by Primary Nurse Corresponding to the Institution's Patient Care Standards in Primary Nursing

Standard	Activity Provided	Provided by Primary Nurse			
		N	%	N	%
Structure					
1	Primary Nurse or Primary Nurse and Co-primary Nurse Assigned	N/A	N/A	37	77
Process					
3	Care plan individualized and	39	85	N/A	N/A
	Developed with patient/family	24	51	N/A	N/A
9	Documentation of response to care		76		
Structure and Process					
2	Initiation of care plan	41	85	26	68
4	Collaboration with physician regarding care plan	37	83	20	54
5	Provision of continuity of care	38	79	33	87
6	Provision of patient/family teaching	24	50	24	100
7	Coordination of care	21	95	19	91
8	Initiation of discharge planning process	38	79	6	17
	Total performance score:	Process 76		Structure 71	

hours. It should be noted that the 11 patients not assigned primary nurses at the time of the study had been in the hospital between two and eight days. For the study institution a performance level of 77 demonstrates that the accountability is being assigned for the majority of the patients but it is not clear how much of the hospitalization has passed prior to the assignment.

Standard 2 is concerned with the care planning function. While the overall performance score of 85 for the nursing process activity of initiating the care plan is quite high, the primary nurse actually initiated the care plan on only 26 patients for a performance score of 68. That is 68% of the 41 patients who had care plans initiated had them initiated by the primary nurse. Not only is this percentage low but it means that the percent of total patients for whom care plans is initiated by primary nurses is extremely low, 54%. If primary nurses are to accept accountability for the patients' nursing care, it would seem appropriate for all primary nurses to develop the care plans on their own primary patients. Setting the minimum level of acceptability at a much higher level, such as 90%, would allow for those few special times when an assigned co-primary nurse or a primary nurse on a previous unit initiates the patient care plan but still maintain primary accountability for care planning with the assigned primary nurse.

Standard 3 includes two process only activities (care plan individualized and inclusion of patient and family in care planning).

Performance on the patient and family in the care planning process is very low. As discussed previously in relation to research question 1, for performance scores to improve, nurses will first need to value the time spent including patients in the care planning process. In addition, nurses will need to be encouraged to use more efficient and effective ways to include patients in this process and so that patients know they were involved. They may want to have patients initial the care plan as it is being developed, discussed or updated, or document in the medical record the discussion of the care plan with the patient/family.

Standard 4 addresses the extent to which there is collaboration with the physician regarding the patient's care plan. The process performance score of 83.31 is commendable. Although this finding demonstrates a high degree of collaboration, the extent to which the primary nurse is carrying out the activity is much lower. Collaboration between the primary nurse and the physician was reported for only slightly over 50% of these patients. Furthermore, it is probable that this value is an overestimate. These data were obtained by interviewing the RN on duty who was not always the primary nurse. The concept was measured by a single item with a yes/no response. The nurses may have wanted to appear compliant and the scores may therefore reflect social desirability. Several items addressing the concept of collaboration should be developed in order to be more sensitive to the concept. In addition, giving the items a

five- or seven-point range might be useful. The data might also be reliable if the physician or other health professionals were asked to corroborate the data.

Standard 5 is concerned with continuity of care. Overall, 79% of the patients received continuous care by a limited number of nurses. That is, each patient was cared for by no more than two different nurses over seven days on any given shift. Of these patients, 87% of them received continuous care by their primary nurse, demonstrating a very commendable effort. Furthermore, of the patients assigned a primary nurse, there were only four patients who did not receive continuous care by their primary nurse. It is entirely possible that when a primary assignment was altered for a period of time, it related to staffing concerns or need for relief by a primary nurse with an intense relationship with a patient. Both could be considered acceptable reasons for not achieving an even higher score.

Standard 6 is concerned with the role of the primary nurse in patient and family teaching. Overall, the performance score for patient teaching was 50, indicating that only half the patients received teaching from their nurses. This score seems very low since all patients have some degree of knowledge deficit regarding their illness and care when they are hospitalized. Of the patients for whom there is evidence of teaching, in virtually all cases it was done or arranged for principally by the primary nurse. This suggests that the little teaching that was done might not have been done if it

had not been for the primary nurse; primary nursing made the difference. Although the performance of the primary nurse appears extremely commendable, there are still 13 patients with primary nurses who did not receive teaching. Therefore, primary nursing assignment increased the likelihood that patient teaching was provided but did not assure its performance.

To assist with documentation of patient teaching, the institution has developed a generic patient and family teaching record as well as approved printed teaching records for specific populations of patients requiring similar information such as diabetes education, post-cardiac surgery education, or post-partum and newborn education. However, these were not used consistently and therefore, in the absence of documentation, one must assume it was not done. Patients may be receiving teaching in more informal ways, such as during conversations while the nurse is making the bed, that are not reflected in the documentation.

Standard 7 refers to the coordination of patient care: care that is provided by multiple health care providers to the same patient in an organized and planned fashion. Of the 24 patients for whom coordination of care was appropriate (i.e., they received care from other health care providers, such as social service, physical therapy, or clinical nurse specialists are part of the care process), 21 patients of 95% received coordinated care. From this group of 21, 19 had care coordinated by the primary nurse for a performance score

of 91%. It appears that when others are involved in the patient's care, the care is very likely to be coordinated and coordinated by the primary nurse most of the time.

Standard 8 is concerned with the discharge planning process. Evidence that the discharge planning form was initiated was found in 38 of the 48 patients or 79%. However, of these 38, only six or 17% were initiated by the primary nurse. Of the total number of patients studied, fewer than 13% had the discharge plan initiated by a primary nurse. While this value suggests an unacceptable level of performance by the primary nurse in instituting the discharge planning process it may more accurately be a reflection of hospital policy. As previously noted, discharge planning is by policy initiated (and documented on a special form) when the patient is admitted. This is regularly done before a primary nurse is assigned. For example, patients who are admitted for surgery go to a presurgery unit where their initial assessment and discharge planning records are completed. Following surgery, they are then admitted to a bed on a unit. It is only at this point that a primary nurse is assigned. Therefore, Standard 8 is not appropriate for primary nursing as it is currently written given the hospital structure for discharge planning. The recommendation is made to substitute a new structural standard that addresses the role of the primary nurse in reviewing, altering or developing the discharge plan rather than initiating the plan.

Standard 9, the second exclusively process standard, refers to the extent to which the nursing staff as a whole documents the response of the patient to the care. Although this score is within acceptable range (76), there is opportunity for improvement. This score might be improved by simply improving documentation systems and methods. Furthermore, the institution could be more purposeful in integrating the documentation of care to the care outlined in the patient's care plan as addressed previously in research question 1.

In summary, having a primary nurse assigned positively influenced the performance of the patient care activities of continuity of care, patient and family teaching, and coordination of care. However, there is strong evidence that patients are not being included in planning their care and patient and family teaching are not being done (or at least documented). In general, patients' care plans are developed by someone other than the primary nurse, and collaboration between the primary nurse and the physician is occurring for almost 50% of the patients. In addition, initiation of the discharge planning process by the primary nurse is virtually non-existent.

Research question 3: How does the level of performance with the nursing process components compare to the level of performance of other institutions practicing primary nursing?

The overall level of performance across all components of the nursing process for the study institution was 76.10 compared to 73.00 for the Medicus sample. Both values fall within the acceptable level

of performance for the nursing process as a whole. As noted in Table 3, performance scores range from 70.04-81.65 for the study institution and 63.00-83.50 for the Medicus sample (see Appendix F for a more complete comparison by subobjective). The study institution has performance scores higher than the Medicus sample in the planning and evaluation components while the Medicus sample is higher in assessment and intervention. The greatest difference between the study sample and the Medicus sample is found within the non-physical intervention portion of the intervention component. The study institution's performance is -1.06 SD below the mean of that in the Medicus sample. Items related to patient teaching, emotional well being, and involvement of family in the care process are included in this portion. As previously noted, these are areas needing improvement for the study institution.

Summary

As part of the Patient Care Standards in Primary Nursing developed by a single institution, the nursing quality assurance activity of the evaluation of structural and process standards in primary nursing was executed in a non-experimental evaluative study design. The ANA quality assurance model provides direction for this evaluation process which includes the interpretation of the results, developing alternatives, implementing alternatives, and re-evaluating after a specific period of time to complete the quality assurance cycle. The purpose of this study was to evaluate the extent to which an

Table 3

Comparison of Mean Performance Scores for Components of the Nursing Process in Institutions Practicing Primary Nursing

Subobjective number and content	SVHMC	Medicus	Z-Score
Assessment	70.04	75.00	[a]
Planning	81.65	63.00	[a]
Total Assessment and Planning Performance Score	76.69	68.00	+.58
(corresponds to Medicus Major Objective 1)		15 SD	
Physical Intervention	88.26	89.00	-.15
(corresponds to Medicus Major Objective 2)		5 SD	
Non-Physical Intervention	66.40	78.00	-1.06
(corresponds to Medicus Major Objective 3)		11 SD	
Total Intervention Performance Score	77.33	83.50	[a]
Evaluation	75.41	72.00	+.31
(corresponds to Medicus Major Objective 4)		11 SD	
Overall Nursing Process Performance Score	76.01	73.00	[a]

[a] Z-scores not calculated because data related to the Medicus population were available only for the sub-objectives and major objectives, not individual items composing the nursing process components

institution's transition to primary nursing was operational as well as the overall performance of the nursing process components of assessment, planning, intervention, and evaluation within this model.

Overall, the nursing practice is acceptable in three of the four nursing process components (assessment, intervention, and evaluation) and commendable for the planning component. As previously noted, the overall findings of this study are higher than the average reported for Medicus (1988). Furthermore, if a score of 70 for this methodology can be considered acceptable or average, the findings of this study suggest that the institution under study is performing at a higher level than that studied by Eichorn & Frevert (1980); Felton (1975); Shukla (1981); Steckel, et al.

With regard to structural variables, the institution under study has demonstrated acceptable performance overall (71) and commendable on half. On the only variable which can be compared to findings reported in the literature, the study institution is slightly higher, i.e., 77% of the patients in this study were assigned a primary nurse on admission compared with 72% in a study conducted by Kent and Larson (1983). The data suggest the need to reinforce the accountability of primary nurses for role expectations, especially in the areas of the primary nurse initiating care planning, primary nurse collaboration with physicians regarding care plan, primary

nurse provision of patient and family teaching, and primary nurse involvement in the discharge planning process. Compared to other institutions practicing primary nursing, the study institution was higher in performance scores related to the planning and evaluation components and lower in the assessment and intervention components.

Recommendations

Although the overall performance scores for both the process and the structural variables were acceptable, some patient care activities were identified as needing improvement. Therefore, five general recommendations have been developed to improve the performance of the primary nursing model. These include:

1. Verify the causes of the discrepancies, particularly in the areas of patient and family teaching, discharge planning, collaboration, and primary nurse accountabilities.

While the data from this study suggest reasons for these discrepancies (see Figure 4), those reasons need further study. The institution needs to gather additional data regarding the specific source of the problem. As previously noted, each deficiency is most likely related to one or a combination of three causes: 1) the patient care activity is not being done; 2) there is a discrepancy between what is being done and what is documented; and 3) there is a

Figure 4. Recommendations for improvement in the performance scores with the components of the nursing process and structural variables.

1. Activity not being done.

Assessment: Condition assessed on admission (emotional/behavioral).

Current condition assessed (emotional/behavioral).

Planning: Patient/family involved in planning care.

Primary nurse initiates plan of care.

Primary nurse collaborates with physician regarding plan of care.

Intervention: Patient/family included in care process.

Patient/family teaching.

Discharge process initiated (overall and by primary nurse).

Psycho-emotional well being protected.

Potential Solutions

1) Develop educational strategies to increase the knowledge nurses and primary nurses have of these patient care activities.

2) Develop method of involving patients/families in care planning and care process including method of documentation.

3) Develop strategies to increase primary nurse sense of accountability for the performance of the patient care activities.

2. Discrepancy between what is performed and what is documented.

Assessment: Condition assessed on admission.

Current condition assessed.

Figure 4. (continued)

Intervention: Need for fluids/nutrition attended.

Patient/family teaching.

Potential Solutions

1) Reinforce proper use of current documentation tools related to these areas of deficiency.

2) Include checklist of prompters for emotional/behavioral assessment, i.e., apprehensive, angry, withdrawn, other. Same key words could be used to address both assessment on admission and on-going assessment records.

3. System or administrative barrier.

Intervention: Discharge planning process initiated.

Primary nurse initiation of discharge planning process.

Potential Solution

1) Change the wording of Standard 8 to reflect the desired behavior of the primary nurse related to the discharge planning process under the current discharge policy and procedure

OR

2) Change the policy and procedure to coincide with Standard 8 as it currently reads in relation to the role of the primary nurse in discharge planning.

system or administrative barrier. Strategies could include asking a representative sample of nurses to indicate their opinion regarding the discrepancies. Direct observation and recording of nursing process activities as they occur would also assist with documenting the source of the discrepancies. Corresponding potential solutions may include: increasing the knowledge and value nurses place on certain patient care activities; clarifying documentation tools and expectations for documentation, and removing, altering or changing the system to permit the performance of a required patient activity.

2. Consistent with the next step of the ANA quality assurance model, develop and implement solutions to improve discrepancies.
3. Set goal of 100% compliance with Standard 1: primary nurse assigned within 24 hours of admission.
4. Set minimum acceptable performance levels for each of the other Patient Care Standards in Primary Nursing.
5. Develop consistent method of identification of the primary nurse to improve identification with patient and family, and other care providers.

Conclusion

The primary nursing model is attempting to meet the objectives outlined by Manthey (1970, 1980) and discussed previously. The study

institution operationalized Manthey's objectives in the form of developing the ten Patient Care Standards in Primary Nursing. Setting standards identifies nursing practice areas of accountability for which the organizational structure, processes and outcomes can be evaluated. When setting standards, an institution assumes that the standard will be operative at all times, since it is the standard. The standard represents the highest level of performance desired and multiple factors may influence the extent to which the standards are achieved. Within the assignment process, the assumption is made that if a primary nurse is assigned, the accountability for patient care is operational. In the case of this standard, lack of assignment decreases the likelihood of higher performance scores on patient care activities. Primary nursing is evolutionary until the level of performance is 100% for the role of the primary nurse as outlined in the standards when it can then be considered operationalized. If the structure for primary nursing is in place, then the nursing process activities will occur at high performance levels.

As outlined in the ANA quality assurance model, the study institutions will use the results of this evaluation to investigate more thoroughly structural and nursing process areas where their performance demonstrated areas for improvement. Specifically, the Primary Nursing Committee in coordination with the Nursing Quality

Assurance Committee, nurse managers, and administrators will make interpretations of these data and set action plans to improve nursing practice and clarify the primary nursing standards.

These findings support the notion that nursing care under the primary nursing model in the study institution is comparable to that in other institutions. While normative data against which to evaluate primary nursing remain scarce, it is hoped that the performance scores achieved in this study will add to the present data available. This is valuable in order to increase the pool of data that can then become normative and useful for practice decisions. In addition, the confirmation of the nursing quality assurance approach to evaluating nursing practice is consistent with the professional action of assuming accountability for practice standards. The willingness to evaluate nursing practice and make changes completes the circle of quality assurance activities directed at improving patient care. The patient, after all, is at the very center of accountability as defined by the Nurse Practice Act.

There are to limitations of this research. The first is related to the instruments and their lack of sensitivity to measure particular phenomena such as collaboration, coordination, patient teaching, and discharge planning in any degree of depth. Although the Medicus Corporation has recently revised the NPQMI and state that

it is more sensitive to the concerns of primary nursing, the revised form was not used in this study because the amount of data available would not have been sufficient to consider it normative. The second limitation is referred to as the Hawthorne effect: people may behave differently because they know they are being studied. Although efforts were taken to keep the study period unknown to the nurses in order to evaluate a window of nursing practice as it really is, nurses were aware of the study in progress and most likely altered their record keeping and behavior to some extent because of it.

Future research focuses related to primary nursing in general should include the development of instruments that more sensitively measure the nursing process activities suggested in the literature as unique to primary nursing, and the extent to which primary nurses are assuming accountability for these activities. Instrument development should address the quality of the outcomes of specific nursing activities: not only measure if the activity is done but how well it is being done. In addition, the correlation between nursing process performance and the primary nursing structural variable of assignment of accountability would be useful. The concept of professionalism was not addressed here but it should be in the future because it has a strong link with accountability issues and measures.

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APPENDIX A

Nursing Process Quality Monitoring Instrument

APPENDIX A

SECTION: I
SOURCE OF INFORMATION: PATIENT RECORD

1.102 IF THE PATIENT DEPENDS ON PROSTHETIC DEVICES FOR ADL, IS THIS RECORDED ON ADMISSION TO THIS UNIT?
1) No
2) Yes
3) Not Applicable
/1

NOTE: DEPEND means that the patient uses or has prosthetic devices for ADL. PROSTHETIC DEVICES refer to any device used for ADL, e.g. dentures, glasses, hearing aids, contact lenses, orthopedic shoes or braces, artificial limbs or eyes. May include devices such as wigs. ADL means minimal activities required for daily personal care, e.g. eating, toilet, dressing, ambulation.

DIRECTIONS: Observer must check with patient if nothing is recorded. To check, ask patient: DO YOU HAVE OR USE ANY SUPPORTIVE ITEMS SUCH AS GLASSES, DENTURES, BRACES, ETC.?

Code N/A if patient initially admitted to another unit or patient does not have or use prosthetic devices.

Code NO if patient has or uses prosthetic devices and nothing is recorded.

Code YES only if patient has prosthetic devices and this is recorded within the first 24 hours of admission.

1.105 IS THERE A STATEMENT WRITTEN UPON ADMISSION TO THIS UNIT ABOUT THE CONDITION OF THE SKIN?
1) No
2) Yes
/2

NOTE: Refers to dryness, turgor-hydration, absence or presence of skin lesions, localized skin color, warmth, etc. Do not accept general description such as "Pale".

Do not code N/A; applies to all patients on this unit.

Code YES only if statement is recorded within the first 24 hours of admission to this unit.

SECTION: I
SOURCE OF INFORMATION: PATIENT RECORD

1.202 IS THERE A STATEMENT REGARDING THE PATIENT'S UNDERSTANDING OF HIS ILLNESS OR THE REASON FOR ADMISSION TO THE HOSPITAL, RECORDED UPON ADMISSION TO THIS UNIT?

1) No
2) Yes - includes diagnosis, surgery, tests or symptoms
3) Yes-Understanding of illness and prognosis stated
4) Not Applicable

/3

NOTE: Refer to answer format for definition of level of understanding.

Do not code N/A for responsive adults or children. May code N/A for small children, infants or patients unresponsive on admission.

Code YES only if statement is present and is recorded within 24 hours.

1.206 ARE EITHER THE DIET OR THE FOOD PREFERENCES OF THE PATIENT RECORDED UPON ADMISSION TO THIS UNIT?

1) No
2) Yes
3) Not Applicable

/4

Code N/A if information was recorded on admission to another unit or if the patient was unable to give history on admission.

Code YES only if statement is present and recorded within 24 hours of admission.

1.212 IF THE PATIENT HAS PRE-EXISTING HEALTH PROBLEMS, IS THERE A STATEMENT RECORDED ON ADMISSION ABOUT WHETHER THE PATIENT IS CURRENTLY UNDER TREATMENT FOR THE PROBLEMS? EXAMPLES: Radiation Rx, physical therapy. Should include any psychiatric treatment with mental health center, private psychiatrist.

1) No
2) Yes
3) Not Applicable

/5

NOTE: Observer must check with patient if nothing is recorded. Then, to determine applicability, ask patient: WHEN YOU WERE ADMITTED WERE YOU UNDER TREATMENT FOR ANY HEALTH PROBLEMS?

Code NO if nothing recorded and patient was under treatment.

Code N/A if patient was not under treatment for pre-existing health problems at time of admission.

SECTION: I
SOURCE OF INFORMATION: PATIENT RECORD

1.303 ARE DESCRIPTIONS INDICATIVE OF THE CURRENT EMOTIONAL STATE RECORDED?
1) No
2) Yes
3) Not Applicable
/6

NOTE: Applies to statements of behavior, e.g. talkative, crying, laughing, becoming more restless or to statements of mental-emotional state, e.g. depressed, anxious, presence of hallucinations, delusional etc.

May be N/A for infants.

1.404 DO THE NURSING RECORDS INDICATE THAT CONSIDERATION HAS BEEN GIVEN TO DISCHARGE TEACHING?
1) No
2) Yes
3) Not Applicable
/7

NOTE: May include referral to special teaching teams or individuals, either nursing or non-nursing.

May code N/A if observation made early in patient stay and discharge situation is uncertain.

1.502 IS THERE A NURSING PLAN FOR MAKING OBSERVATIONS OF SIGNS OR SYMPTOMS IN REGARD TO MEDICAL TREATMENT, MEDICATIONS, DISEASE PROCESS OR POSSIBLE COMPLICATIONS?
1) No
2) Yes
3) Not Applicable
/6

NOTE: Refers to major signs and symptoms in regard to this patient's present condition. Does not apply to observations indicated in physician's orders. Observer must determine if patient's condition indicates need for specific observation.

Code YES if any level nursing plan exists.

In Nursery: May refer to feeding tolerance when feeding initiated or weaning tolerance when being taken off a respirator.

2.701 IS BOWEL FUNCTION RECORDED DAILY?
1) No
2) Yes
/9

NOTE: Narrative or graphic records are acceptable.

SECTION: I
SOURCE OF INFORMATION: PATIENT RECORD

4.103 DO RECORDS DOCUMENT THE REASONS FOR OMISSION OF MEDICATIONS? /10

1) No
2) Yes, some of the time
3) Yes, most of the time
4) Yes, all of the time
5) Not Applicable

NOTE: Refers to past 7 days: If patient on unit less than 7 days, consider whatever time patient has been on this unit.

4.105 DO RECORDS DOCUMENT THE EFFECT OF PRN MEDICATION? /11

1) No
2) Yes, some of the time
3) Yes, most of the time
4) Yes, all of the time
5) Not Applicable

NOTE: Refers to past 7 days: If patient has been on unit less than 7 days, consider whatever time patient has been on unit.

4.201 ARE OBSERVATIONS RELATED TO MEDICAL TREATMENT, MEDICATIONS, DISEASE PROCESS, OR POSSIBLE COMPLICATIONS NOTED, E.G., CHANGES IN CONDITION, OBSERVATIONS TO DETECT ONSET OF COMPLICATIONS, OBSERVATIONS OF NEWBORNS SUCH AS HEALING OF CIRCUMCISION, ETC. /12

1) No
2) Yes
3) Not Applicable

NOTE: Statement of observations may refer to either presence or absence of problems. Includes any nursing observations not included in medical orders. Includes side or untoward effects of current therapy.

DIRECTIONS: Consider condition of patient and determine whether specific observations should be made.

Code NO if applicable and not recorded.

SECTION: I
SOURCE OF INFORMATION: PATIENT RECORD

4.203 DO RECORDS DOCUMENT THE NEED FOR ADDITIONAL INSTRUCTION?
1) No
2) Yes
3) Not Applicable
/13

DIRECTIONS: If nothing written, ask nurse: HAVE ANY KIND OF EXPLANATION BEEN GIVEN TO MR. _____ IN REGARD TO HIS CONDITION OR CARE? ARE ANY ADDITIONAL EXPLANATIONS NEEDED?

Code YES refers to written statement about what additional explanations are needed.

6.101 ARE NURSING NOTES WRITTEN AS OFTEN AS REQUIRED BY HOSPITAL POLICY?
1) No
2) Yes
/14

6.103 ARE NURSING NOTES PROPERLY SIGNED AS REQUIRED BY HOSPITAL POLICY?
1) No
2) Yes
/15

101 IS THE CHART ASSEMBLED IN THE CORRECT ORDER AS SPECIFIED BY HOSPITAL PROCEDURE?
1) No
2) Yes
/16

6.307 ARE ALL PAGES OF THE CHART IDENTIFIED WITH PATIENT'S NAME AND HOSPITAL NUMBER?
1) No
2) Yes
/17

Code YES if all pages are marked (stamped, written, typed) with patient's name and hospital number.

6.308 IS THE NAME AND/OR PHONE NUMBER OF FAMILY OR FRIEND TO CONTACT IN CASE OF EMERGENCY LISTED ON THE KARDEX OR OTHER APPROPRIATE RECORD?
1) No
2) Yes
/18

NOTE: Applies to records that can be located on unit.

SECTION: III
SOURCE OF INFORMATION: PATIENT INTERVIEW

2.208 HAS THE HOSPITAL ENVIRONMENT BEEN SUFFICIENTLY QUIET FOR THE PATIENT?
1) No
2) Yes
/19

NOTE: Refers to noise from hospital equipment and people talking in the corridors. Does not refer to noises external to the hospital, such as street noise.

DIRECTIONS: To patient or parent: HAS IT BEEN QUIET ENOUGH FOR YOU/YOUR CHILD IN THE PAST TWO DAYS?

DIRECTIONS: (PEDIATRICS) - To child 4-6 years: HAS IT BEEN QUIET ENOUGH HERE FOR YOU YESTERDAY AND TODAY?

Probe if clarification necessary: HAS NOISE FROM HOSPITAL EQUIPMENT OR PEOPLE TALKING IN THE CORRIDORS BEEN KEPT LOW ENOUGH FOR YOU?

2.209 DOES THE PATIENT HAVE UNINTERRUPTED PERIODS OF SLEEP AND REST?
1) No
2) Yes
3) Information Not Available
/20

DIRECTIONS: To patient or parent: FOR THE PAST TWO NIGHTS HAVE YOU/YOUR CHILD BEEN ABLE TO SLEEP OR REST WITHOUT INTERRUPTIONS FOR AT LEAST SEVERAL HOURS?

DIRECTIONS: (PEDIATRICS) - To child 7 and older: WHEN YOU WENT TO SLEEP THE LAST COUPLE OF NIGHTS WERE YOU ABLE TO SLEEP ALL NIGHT?

SECTION: III
SOURCE OF INFORMATION: PATIENT INTERVIEW

2.602 IS THE DIET SERVED AT APPROPRIATE TIME AFTER PATIENT'S ADMISSION TO THIS UNIT?

1) No
2) Yes
3) Not Applicable
4) Information Not Available

/21

NOTE: Patient or parent defines reasonable amount of time.

DIRECTIONS: To patient or parent: WHEN YOU/YOUR CHILD WAS FIRST ADMITTED TO THIS UNIT, WERE YOU/WAS YOUR CHILD SERVED YOUR/HIS FIRST MEAL OR SNACK ON TIME?

Code N/A only if patient NPO on admission to unit, or unresponsive on admission.

Code INA if patient does not recall.

3.104 IS THE PATIENT INFORMED OF VISITING HOURS ON ADMISSION TO THE UNIT?

1) No
2) Yes
3) Not Applicable

/22

DIRECTIONS: To patient or parent of child: DID SOMEONE TELL YOU WHAT THE VISITING HOURS ARE FOR THIS UNIT OR DID THEY REFER YOU TO A PATIENT GUIDE FOR INFORMATION ABOUT THE VISITING HOURS?

If yes, ask: WHEN DID THEY TELL YOU?

DIRECTIONS: (PEDIATRICS) - To child 7 years and older: DID SOMEONE TELL YOU WHEN YOUR MOTHER OR FATHER COULD COME TO SEE YOU?

If yes, ask: WHEN DID THEY TELL YOU?

Code N/A if patient transferred to this unit from another unit with same visiting hours.

Code YES only if patient was told visiting hours within the first 24 hours of admission.

SECTION: III
SOURCE OF INFORMATION: PATIENT INTERVIEW

3.109 IS THE PATIENT INFORMED WITHIN THE FIRST 24 HOURS OF ADMISSION OF THE EMERGENCY CALL SYSTEM IN THE BATHROOM? /23

1) No
2) Yes
3) Not Applicable

NOTE: Applies to situations in which the bathroom has emergency call system.

DIRECTIONS: Ask patient: WHEN YOU FIRST CAME TO THE ROOM, DID SOMEONE TELL YOU HOW TO CALL FOR A NURSE IF YOU ARE IN THE BATHROOM?

Code N/A if patient initially admitted to another unit or if no emergency call system was available.

Code YES only if patient was informed within the first 24 hours of admission.

3.202 DO NURSING STAFF MEMBERS INTRODUCE THEMSELVES TO THE PATIENTS? /24

1) No
2) Yes, some of the time
3) Yes, most of the time
4) Yes, all of the time

DIRECTIONS: To patient or parent: DO MEMBERS OF THE NURSING STAFF INTRODUCE THEMSELVES TO YOU/YOUR CHILD?

DIRECTIONS: (PEDIATRICS) - To child 4 years and older: DO THE NURSES TELL YOU THEIR NAMES?

SECTION: III
SOURCE OF INFORMATION: PATIENT INTERVIEW

3.204 DO STAFF ELICIT PATIENT'S PARTICIPATION DURING ROUNDS?
1) No
2) Yes
3) Not Applicable
/25

DIRECTIONS: To patient or parent of child: IN THE PAST TWO DAYS, HAVE ANY GROUPS OF DOCTORS OR NURSES MAKING ROUNDS TOGETHER COME INTO YOUR ROOM TO SEE YOU?

If yes, ask: DID YOU FEEL THAT YOU WERE INCLUDED AS PART OF THE GROUP? FOR INSTANCE, DID THEY ASK FOR YOUR OPINIONS OR GIVE YOU A CHANCE TO TALK?

DIRECTIONS: (PEDIATRICS) - For child 7 years and older: IN THE PAST COUPLE OF DAYS, HAVE DOCTORS AND NURSES COME INTO YOUR ROOM TOGETHER TO SEE YOU?

If yes, ask: DID THEY TALK TO YOU AND GIVE YOU A CHANCE TO ASK QUESTIONS?

/04 ARE CURTAINS DRAWN OR DOOR CLOSED FOR EXAMINATION, TREATMENT, OR PRIVACY?
1) No
2) Yes
3) Not Applicable
/26

DIRECTIONS: To patient 4 years and older: WHEN YOU HAVE HAD AN EXAMINATION OR TREATMENT OR WHEN YOU JUST WANTED TO BE ALONE, WERE THE CURTAINS DRAWN AROUND YOUR BED OR THE DOOR CLOSED?

Code N/A if patient never had examination or treatment, or did not desire privacy.

3.404 DO THE NURSE AND PATIENT DISCUSS MODE OF LIVING, LIVING CONDITIONS, OR OCCUPATIONAL ROLE IN RELATION TO HIS ILLNESS AND RESTORATIVE CARE?
1) No
2) Yes
3) Not Applicable
/27

NOTE: Observer must determine if patient's progress warrants such discussion.

DIRECTIONS: Ask patient: HAV[illegible] OF [illegible] NURSES TALKED WITH YOU ABOUT ANTICIPATING YOUR DISCHARGE AND LIVING ARRANGEMENTS, FOR EXAMPLE, CHANGES OR PROBLEMS YOU MIGHT EXPECT AT WORK OR AT HOME?

Unacceptable if patient merely informed of activities.

SECTION: III
SOURCE OF INFORMATION: PATIENT INTERVIEW

3.411 CAN THE PATIENT IDENTIFY A PARTICULAR NURSE AS "HIS NURSE"? /28
1) No
2) Yes

DIRECTIONS: To patient 4 years and older: IS THERE ONE PARTICULAR NURSE THAT IS "YOUR NURSE" WHILE YOU ARE HERE?

DIRECTIONS: (PEDIATRICS) - To parent: IS THERE ONE PARTICULAR NURSE THAT IS YOUR CHILD'S NURSE WHILE HE IS HERE?

Code YES if patient indicates one nurse/counselor as his nurse/counselor.

Code NO if patient indicates several nurses.

3.501 DO THE NURSING STAFF INFORM THE PATIENT TO REPORT SIGNS AND SYMPTOMS RELATED TO HIS ILLNESS (E.G., RASH, DIZZINESS, PAIN) TO THE NURSING STAFF? /29
1) No
2) Yes
3) Not Applicable

NOTE: Applicable if there are any signs or symptoms which patient should be aware of to report.

DIRECTIONS: To patient 4 years and older: DID THE NURSES TELL YOU IF THERE ARE ANY SIGNS OR SYMPTOMS RELATED TO YOUR ILLNESS THAT YOU SHOULD REPORT TO THEM?

In Psychiatry: Code N/A for patients who are somatizing.

APPENDIX B

Primary Nursing Supplemental Questionnaire

APPENDIX B

PRIMARY NURSING SUPPLEMENTAL QUESTIONNAIRE

Source of Information: Patient Record

PNS 1-1 Was the patient assigned a primary nurse and/or a co-primary nurse on admission?

1) No primary nurse; No co-primary nurse
2) No primary nurse; Yes co-primary nurse
3) Yes primary nurse; No co-primary nurse
4) Yes primary nurse; Yes co-primary nurse

PNP 2-1: Are patient problems/nursing diagnosis identified on the patient care plan?

1) No
2) Yes

PNS 2-2: Was the patient's care plan initiated by the primary nurse?
NOTE: Must be evidence that the assigned primary nurse initiated the patient's care plan.

1) No
2) Yes
3) Primary nurse not assigned

PNP 3-1: Is the patient's care plan individualized?
NOTE: If standard of care is used, it must be individualized to each patient.

1) No
2) Yes
3) Not Applicable

PNS 5-1: During the patient's hospitalization, has the primary nurse provided care to the patient and family each shift s/he has been scheduled? NOTE: Use the unit schedule board to determine primary nurse's schedule--Code "No" only if primary nurse was on and did not provide care.

1) No
2) Yes
3) Primary nurse not assigned

APPENDIX B

PRIMARY NURSING SUPPLEMENTAL QUESTIONNAIRE
(continued)

Source of Information: Nursing Personnel Interview

PNS 4-1: Did the primary nurse collaborate with the physician regarding the nursing care plan?

1) No
2) Yes
3) Primary nurse not assigned

PNP 7-1: If other health care providers such as dietary, social service or physical therapy are involved in the patient's care, is this care coordinated? NOTE: Must be some evidence that this care is organized by the nurse.

1) No
2) Yes
3) Not applicable (no others involved in care)

PNP 7-2: Does the primary nurse coordinate the care? NOTE: Ask the primary nurse to describe her/his coordinator role. Record "Yes" if PN describes how s/he arranged for other professionals' visits, communicates among the disciplines, organizes care conferences. Record "No" if PN does not describe these kinds of activites.

1) No
2) Yes
3) Primary nurse not assigned

Source of Information: Patient Interview

PNP 3-2: Ask patient: Were you (and your family) involved in planning your care with your nurse? NOTE: Refers to actually discussing the plan of care, the intervention planned, and the expected goals or outcomes.

1) No
2) Yes

Patient Record Review

APPENDIX B

PRIMARY NURSING SUPPLEMENTAL QUESTIONNAIRE
(continued)

PNS 5-2: When the primary nurse has been off, has the designated co-primary nurse provided care to the patient and family each shift s/he has been scheduled?

1) No
2) Yes
3) Co-primary nurse not assigned

PNS 6-1: Is the patient/family teaching provided by the primary nurse?

1) No
2) Yes, some of the time (less than 50%)
3) Yes, most of the time (50%)
4) Yes, all of the time (100%)

PNS 8-1A: Is the discharge plan form initiated by the primary nurse on admission?

1) No
2) Yes

PNS 8-1B: If "YES", then was it initiated by the primary nurse?

1) No
2) Yes

PNS 8-2: Is the discharge plan identified on the patient care plan, the patient education record, or the discharge plan form? NOTE: Must be evidence of planning related to knowledge, skills, abilities and/or arrangements for patient and/or care takers?

1) No
2) Yes

OREGON HEALTH SCIENCES UNIVERSITY

CONSENT FORM

This study is being conducted in an effort to evaluate the nursing care provided to patients under the primary nursing system at St. Vincent Hospital and Medical Center.

TITLE: EVALUATING THE LEVEL OF PERFORMANCE WITH THE PATIENT CARE STANDARDS IN PRIMARY NURSING

PRINCIPAL INVESTIGATOR: DEBORAH BECKER, RNC, BSN, MASTER'S CANDIDATE
OREGON HEALTH SCIENCES UNIVERSITY

Since primary nursing is practiced in this hospital and affects patient care, it is useful to ask patients questions about their care. In this study a specially trained nurse who is part of the research team will ask you questions about your care in the hospital one time only for approximately 10-15 minutes. At no time are you at risk for any discomforts or treatments directly to your person. It is expected that this study will provide information to this hospital and the nursing community in general about the status of primary nursing as measured by patient care. Information about you and your responses will be kept strictly confidential: neither your name nor your identity will be used for publication or publicity purposes. If you have any questions concerning this study, contact Deborah Becker, RNC, principal investigator at 291-2231 or Dr. Darlene McKenzie, advisor and co-investigator at 279-7709 between 9am and 5pm.

I understand that my participation in this study is voluntary and that I may refuse to participate or withdraw from this study at any time without affecting my relationship with or treatment at the Oregon Health Sciences University and St. Vincent Hospital and Medical Center.

I have read the foregoing and agree to participate in this study.

PATIENT SIGNATURE	DATE
WITNESS SIGNATURE	DATE

DEMOGRAPHIC DATA

PRIMARY NURSING EVALUATION RESEARCH

STUDY UNIT: 9E 8W 8E 7W 6W 6E

PATIENT: MEDICAL RECORD NUMBER_____-_____-_____

AGE_____

SEX_____

RACE_____

ADMITTING DIAGNOSIS_____

PATIENT CLASSIFICATION: 1 2 3 4

DATE OF ADMISSION_____

TIME OF ADMISSION_____

DAY OF HOSPITALIZATION_____

DATA COLLECTION:

DATA COLLECTOR:_____AM_____AR_____DB

_____CH_____KS

DATE OF DATA COLLECTION_____

TIME OF DATA COLLECTION_____

BED NUMBER OF SUBJECT_____

SUBJECT NUMBER: 1 2 3 4 5 6 7 8

QUESTIONNAIRE NUMBER_____

COMMENTS: [LIST PATIENT BED NUMBERS THAT COULD NOT BE INCLUDED IN THE DATA COLLECTION AND THE REASON WHY]

CRITERIA FOR INCLUSION IN STUDY:

1. ADMITTED LONGER THAN 24 HOURS
2. CONSENT TO PARTICIPATE
3. OVER 18 YR.

APPENDIX C

Quality Monitoring Instrument: Objectives and Subobjectives

APPENDIX C

Figure 11 Quality of Nursing Care: Objectives and Subobjectives

1.0 The Plan of Nursing Care is Formulated.

- 1.1 The condition of the patient is assessed on admission.
- 1.2 Data relevant to hospital care are ascertained on admission.
- 1.3 The current condition of patient is assessed.
- 1.4 The written plan of nursing care is formulated.
- 1.5 The plan of nursing care is coordinated with the medical plan of care.

2.0 The Physical Needs of the Patient Are Attended

- 2.1 The patient is protected from accident and injury.
- 2.2 The need for physical comfort and rest is attended.
- 2.3 The need for physical hygiene is attended.
- 2.4 The need for a supply of oxygen is attended.
- 2.5 The need for activity is attended.
- 2.6 The need for nutrition and fluid balance is attended.
- 2.7 The need for elimination is attended.
- 2.8 The need for skin care is attended.
- 2.9 The patient is protected from infection.

3.0 The Non-Physical (Psychological, Emotional, Mental, Social) Needs of the Patient Are Attended

- 3.1 The patient is oriented to hospital facilities on admission.
- 3.2 The patient is extended social courtesy by the nursing staff.
- 3.3 The patient's privacy and civil rights are honored.
- 3.4 The need for psychological-emotional well-being is attended through interpersonal communication.
- 3.5 The patient is taught measures of health maintenance and illness prevention.
- 3.6 The patient's family is included in the nursing care process.
- 3.7 The need for psycho-emotional well-being is attended through therapeutic milieu.

4.0 Achievement of Nursing Care Objectives is Evaluated

- 4.1 Records document the care provided for the patient.
- 4.2 The patient's response to therapy is evaluated.

Figure 11 Quality of Nursing Care: Objectives and Subobjectives (continued)

5.0 Unit Procedures are Followed for the Protection of All Patients

- 5.1 Isolation and decontamination procedures are followed.
- 5.2 The unit is prepared for emergency situations.
- 5.3 Medical-legal procedures are followed.
- 5.4 Safety and protective procedures are followed.

6.0 The Delivery of Nursing Care is Facilitated by Administration and Managerial Services

- 6.1 Nursing reporting follows prescribed standards.
- 6.2 Nursing management is provided.
- 6.3 Clerical services are provided.
- 6.4 Environmental and housekeeping services are provided.
- 6.5 Professional and administrative services are provided.

Quality Monitoring Module, Medicus Systems Corporation, 1985, pg 7.

APPENDIX D

Evaluation Strategy for Nursing Process

APPENDIX D

EVALUATION STRATEGY FOR NURSING PROCESS

COMPONENT	INSTRUMENT	SUBOBJECTIVE ITEM NUMBER	SUBOBJECTIVE/ITEM CONTENT
ASSESSMENT	*NPQMI	1.1	Condition assessed on admission.
		1.2	Data relevant to care ascertained.
		1.3	Current condition assessed.
PLANNING	*PNSQ	PNP 2–1	Nursing diagnosis/patient problems.
		PNP 3–1	Individualized care plan.
		PNP 3–2	Patient involvement in planning care.
		PNP 7–1	Care coordinated across disciplines.
	NPQMI	1.4	Written plan of care is formulated.
		1.5	Plan is coordinated with the medical plan.
INTERVENTION	NPQMI	PNP 8–2	Discharge plan initiated.
		2.1	Patient protected from accident or injury.
		2.2	Need for comfort and rest attended.
		2.3	Need for physical hygiene attended.
		2.4	Need for supply of oxygen attended.
		2.5	Need for activity attended.
		2.6	Need for nutrition and fluid balance attended.
		2.7	Need for elimination attended.
		2.8	Need for skin care attended.
		2.9	Patient is protected from infection.
		3.1	Patient oriented to hospital on admission.
		3.2	Patient extended courtesy by staff.
		3.3	Patient privacy and rights are honored.
		3.4	Psycho-emotional well-being attended: communication.
		3.5	Patient taught health maintenance and illness prevention.
		3.6	Patient/family included in care process.
		3.7	Psycho-emotional well-being attended: milieu.
EVALUATION	NPQMI	4.1	Records document the care provided.
		4.2	Patients' response to therapy evaluated.

*NPQMI: *Nursing Process Quality Monitoring Instrument*
*PNSQ: *Primary Nursing Supplemental Questionnaire*

APPENDIX E

Evaluation Strategy for

Patient Care Standards in Primary Nursing

APPENDIX E

EVALUATION STRATEGY FOR PATIENT CARE STANDARDS IN PRIMARY NURSING

NURSING SERVICE STRUCTURAL VARIABLES		INSTRUMENT	SUBOBJECTIVE/ ITEM NUMBER
Primary Nurse has 24 hour accountability, authority, and autonomy for patient care plan. (That part of the standard which reflects the structural variable is underlined.)			
STANDARD 1.	Primary and co-primary nurse assigned to each patient.	*PNSQ	PNS 1-1
STANDARD 2.	Primary nurse initiation of care plan..		PNS 2-2
STANDARD 4.	Primary nurse collaboration with physician.		PNS 4-1
STANDARD 5.	Primary nurse provision of continuity of care.		PNS 5-1
STANDARD 6.	Primary nurse provision of patient/ family teaching.		PNS 6-1
STANDARD 7.	Primary nurse coordination of patient care.		PNS 7-1 PNS 7-2
STANDARD 8.	Primary nurse initiation of discharge planning process.		PNP 8-1
NURSING SERVICE PROCESS VARIABLES			
STANDARD 2.	Primary nurse initiation of care plan.	PNSQ	PNP 2-1

*PNSQ: Primary Nursing Supplemental Questionnaire
*NPQMI: Nursing Process Quality Monitoring Instrument

NURSING SERVICE PROCESS VARIABLES		INSTRUMENT	SUBOBJECTIVE/ ITEM NUMBER
STANDARD 3.	Patient care plan individualized with developed with patient and family.	PNSQ	PNP 3-1 PNP 3-2
STANDARD 4.	Primary nurse collaboration with physician regarding patient care plan.		PNS 4-1
STANDARD 7.	Primary nurse coordination of all care to patients.	PNSQ	PNP 7-3
STANDARD 5.	Primary nurse provision of continuity of care.		PNS 5-1
STANDARD 6.	Primary nurse provision of patient/ family teaching.		PNS 6-1
STANDARD 8.	Primary nurse initiation of discharge planning process.	PNSQ	PNP 8-2
STANDARD 9.	Documentation of response to care.	NPQMI	4.1 4.2

ABSTRACT

Title: Evaluating the Level of Performance with the Patient Care Standards in Primary Nursing

Author: Becker, D.J.

Approved: [redacted]
Thesis Advisor

This study was conducted to evaluate the degree to which the nursing staff in a local acute care hospital is practicing primary nursing.

1. What is the current level of performance with the nursing process components: assessment, planning, intervention, and evaluation?
2. What is the current level of performance with the structural and process activities found in the document "Patient Care Standards in Primary Nursing" developed by the institution?
3. How does the level of performance with the nursing process components compare to the level of performance of other institutions practicing primary nursing?

To answer the questions a non-experimental evaluative research design was utilized. Two instruments (Nursing Process Quality Monitoring Instrument and the Primary Nursing Supplemental Questionnaire) were used to gather data by means of record review,

nurse interviews, patient interviews, and unit observation.

Forty-eight subjects were randomly selected from six medical-surgical units over a two week study data collection period. To be included in the study, subjects must have been at least 18 years old and have been hospitalized at least 24 hours.

Performance scores for the components of the nursing process were all acceptable, specific patient care activities were identified as areas for improvement: Condition assessed on admission, Current condition assessed, Patient/family involved in care planning, Discharge process initiated, Need for fluids/nutrition attended, Psycho-emotional well being protected, Patient/family teaching, and Patient/family included in the care process.

Using the "Patient Care Standards in Primary Nursing" developed by the study institution, the overall structural level of performance was 71. Areas identified for improvement include: primary nursing initiation of care plan, primary nursing collaboration with physician regarding plan of care, and primary nursing initiation of the discharge planning process. The overall nursing proces performance related to the specific patient care activities identified in the standards was also acceptable: 77. Two scores were below the level of acceptability and represent areas for improvement: care plan developed with patient/family, and provision of patient/family

developed with patient/family, and provision of patient/family teaching.

Compared to other institutions practicing primary nursing, the study institution was higher on the planning and evaluation components while the normative sample was higher on the assessment and intervention components.

The findings of the study are discussed in terms of possible reasons for the discrepancies and potential solutions.