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NURSE MANAGER COST/QUALITY STRATEGIES

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by

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ABSTRACT

NURSE MANAGER COST/QUALITY STRATEGIES

by Jo-Ann Iacobellis

This thesis identifies what strategies nurse managers are utilizing to control costs and maintain quality. Utilizing a descriptive survey, data were collected regarding strategies medical/surgical nurse managers had used or were using to control costs and maintain quality. The strategies were reported with regard to their perceived effectiveness in controlling costs and maintaining quality.

The data indicate that the most effective strategies utilized to deal with the issues of cost and quality were staff involvement and participatory management. The least effective strategies identified were charging separately for nursing care and unit based shared governance. However, while 69% of respondents did not see a conflict between cost and quality, they did identify a need for a different method of measuring the cost of nursing care. Questions for future research were also generated from the data.

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nurse managers and faculty
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Chapter 1

INTRODUCTION

Hospitals across the country are restructuring their services to cut costs and increase revenue without jeopardizing the quality of their services. The reason for this restructuring is the new era of health care economics. United States health care costs are escalating at a staggering rate. "By the year 2000, health care expenditures are estimated to account for 15% of the gross national product or approximately 1.5 trillion per year" (Misner & Biskey, 1989, p. 36).

These escalating costs have forced the government to place regulations on health care expenditures. The first of these and the most influential came in 1983 with the change in Medicare reimbursement. Medicare would no longer be a fee for service plan but rather one of fixed reimbursement, called medicare prospective payment system (PPS). The federal budget cuts health care dollars yearly. These cuts affect hospital economics and therefore have the potential to affect the quality of services.

Currently, buyers of health care are not only considering the cost of services, they are also increasingly questioning the quality of the health care they are purchasing. "To remain competitive in a shrinking market place and to satisfy the consumer needs and wants, hospitals and health

care agencies are realizing they need a more customer oriented approach to health care delivery" (Leming, 1991, p. 6).

The Problem and Research Questions

Since nurses are the largest workforce within hospitals they are key people in keeping cost and quality in balance. Changes in financial policies and health care in general, have the potential to affect nursing practice economically, ethically, and in the delivery of quality patient care (Smeltzer, 1990). The nurse manager then has to decide what changes and how those changes need to be made to maintain cost and quality.

This research project addressed (a) what strategies are nursing managers utilizing to contain costs?, (b) what strategies are nurse managers utilizing to maintain quality patient care?, and (c) do nurse managers perceive a conflict between cost containment and maintenance of quality care?

Quality was defined as what patients of the hospital have identified as quality, not what the health care providers view as quality.

Purpose and Need

The purpose of this descriptive research study was to identify the strategies being utilized by nurse managers to control costs and maintain quality. Nyberg's (1990) theoretical model of nursing administration, concerned

with the concepts of economics and human care, provided the theoretical foundation for the study. The goal of the research was to identify the nurse manager strategies that can be applied to practice.

The nurse manager becomes a leader in shaping the profession of nursing for the future. Strategies are important to identify a clearer understanding of the best way to enhance the profession of nursing in a health care world that is changing.

Definition of Terms

Nurse manager was defined as the management level nurse in the hospital that has 24 hour responsibility for a medical surgical nursing unit or units and is also responsible for developing and maintaining the unit or units budget.

Research Design

This was a descriptive research design. The research was conducted by a questionnaire. The purpose of this descriptive design was to determine what nurse managers in similar situations are doing. No manipulation of variables was involved. A single sample was examined.

Scope and Limitations

The sample was comprised of fifty six medical/surgical nurse managers in Northern California. Twenty hospitals were selected based on their San Francisco bay area location, north bay, south bay, east bay, and west bay to allow for

equal representation from each area. The nurse managers were then selected by their respective hospital.

The researcher assumed that all nursing managers that completed the questionnaire were concerned with cost and quality in their hospitals. There was also an assumption that the nurse manager had the power to make changes in the organization where he or she worked. It was assumed that all hospitals in the San Francisco Bay area were experiencing some degree of restructuring or reorganizing, due to the restructuring of health care economics on the federal level. The researcher also assumed that the nursing managers would be open and honest in their answers.

It was hoped that there would be some common strategies identified. Identification of new strategies would be the optimum. The researcher assumed that the study would be relevant and helpful to the profession of nursing and to nurse managers throughout the United States.

Questionnaires have limitations. Questionnaires do not allow the subject to elaborate on responses or ask questions to clarify a question. Many of the questions were open ended and required a written response but did not ask the respondent to clarify their answer. Response rate on mailed questionnaires was expected to be approximately thirty percent. The thirty percent response rate limits the researchers ability to generalize the data

to statewide or nationwide nurse managers. Another limitation was that the study used an investigator developed questionnaire. Other limitations included, the small non-randomized sample and the subjects honesty and willingness to share information.

Chapter 2

CONCEPTUAL FRAMEWORK AND REVIEW OF RELATED LITERATURE

Conceptual Framework

Nyberg's (1990) integrative model for nursing administrators allows the nursing administrator to approach the role with a better understanding of the complexities of being a nursing leader in an organization setting. Nyberg's model addresses the relationship of nursing administration to nursing practice, economics, human care, nursing theory, organizational theory, scientific/physical reality and perceptual/human care reality. The model encourages nursing administrators to be the leaders in promoting a positive approach to understanding the interaction of human care and economics.

Related Literature

The following overview provides a look at the different management strategies that have been tried to address the issues of cost and quality. The literature revealed management cost/quality strategies focused on patient centered health care, success with PPS, staff empowerment and involvement, restructuring or reorganizing nursing care, and leadership.

The financially changing health care environment has caused nursing managers to implement new strategies to provide patient care. Many hospitals have begun

restructuring or reorganizing nursing services to meet the current economic demands.

Mayberry (1991) saw restructuring and reorganizing as an opportunity to institute a new philosophy of nursing that stresses nursing as a health care business committed to providing quality patient care, containing costs, fostering patient and staff satisfaction and producing measurable outputs. Case management, shared governance, total quality management and many other strategies are being identified as answers to the cost/quality dilemma.

Vestal (1989) identified three elements for nurse managers to be successful in bringing about the necessary changes: leadership, innovation, and outcomes. There is a major emphasis on empowerment and decentralization, moving the decision making to the people doing direct patient care. Other major points included forward thinking five years into the future, fewer managers, computerization, ownership by employees and quality as a religion. Everything that comes out of the organization should address quality.

Nurse managers must work within the hospital bureaucratic structure as well as represent the professional image of nursing to the organization. The balance is difficult because the goal of bureaucracy is economic efficiency and the goals of a profession are humanitarian in nature, specifically for nursing the goal is to care for the sick.

The nurse manager must balance the two to prevent conflict and confusion in the minds of his or her staff (Vestal, 1989). Nurse managers traditionally controlled costs by measuring hours per patient day (HPPD) and budgeting accordingly.

HPPD is the sum of the nursing hours required on a particular unit divided by the units of service. A unit of service is the budgetary concept on which expenses in a hospital are based. Nursing units use patient days as their unit of service. Patient days reflect the number of days that any one patient is in the hospital. "Thus, a census of 20 patients per day for 365 days would equal 7300 patient days per year. If this forecast is significantly inaccurate, budgets based on it will also be significantly inaccurate" (Sullivan & Decker, 1988, p. 450).

Strasen (1991) stated that the traditional productivity measure (HPPD) does not take into consideration the cost/quality issues of overtime, skill mix, labor substitution, and contract labor. She proposed a dollars per unit of service measure. "Managers must be held accountable for providing a predetermined level of quality and service at a pre approved or budgeted cost per unit of service" (p. 238). Because of declining profit margins, nurse managers will be striving to provide higher levels

of service and quality at lower cost per unit of service.

Another study by Soule and Dobson (1992) revealed that the salary expenses per patient day (SEPPD) and hours per patient day (HPPD) were not strongly related and did not support the continued use of HPPD as the only parameter for monitoring and controlling nursing salary expenses. SEPPD is the sum of the cost of nursing hours required on a particular unit divided by units of service. The findings indicated that each nursing hour is not paid at the same rate. Holiday pay, overtime, double time, per diem differential, and shift differentials are factors that affect number of hours used and the actual cost of these hours. The authors believe that HPPD alone will leave 160,000 to 460,000 dollars per year in nursing salaries unaccounted for in the hospital budget.

A study at Stanford University Hospital showed that for nurse managers to be productive in light of budget parameters the nurse manager must get regular, timely feedback on budget performance. They developed a feedback system with a one and one half day turnaround time. The results showed that, "when nurse managers get regular, timely feedback on budget performance, their understanding of the relationship between staffing decisions and budget performance grows and their performance against budget can improve dramatically" (Anderson, Hollander & Bastar, 1991,

p. 367).

Another strategy identified in the literature was converting nursing into a revenue generating department from a cost center. The process involves dissecting a unit of nurses work into finite steps, then setting nursing service prices and individually charging each patient via their hospital bill (Patterson, 1992). However, "It is entirely possible that the present practice of allocating a percentage of the hospital operating budget to nursing provides us with more revenue than we would receive by isolating nursing costs " (Reschak, Biordi, Holm & Santucci, 1985, p. 19). The latter statement is especially relevant since physician fee for service continues to change to a fixed reimbursement system.

Bedside computer terminals have been identified as a cost saving measure used by nurse managers in hospitals. At St. Josephs hospital in Milwaukee, Wisconsin, a 567 bed acute care teaching hospital bedside terminals had cost saving benefits and qualitative benefits. The cost savings were 1.4 full time equivalents, skill mix changes, and a reduction in HPPD from 7.10 to 6.54. Many qualitative benefits were identified: positive impact on nursing practice, improved timeliness of data availability and reducing chart bulk (Kahl, Ivancin, & Fuhrmann, 1991).

Welsch and Nicholson (1991) questioned the cost

effectiveness of bedside terminals. "If improving nursing productivity is a hospitals primary goal, it may be far cheaper, easier, faster, and just as lucrative to either streamline nurse charting without computerization (e.g., charting by exception, flow sheets, critical pathways) or to install computer terminals at the nursing station as part of a hospital wide management information system" (p. 438).

Streamlining documentation as a cost saving measure was a strategy seen in the literature. Many hospitals' nursing departments have revised, developed and eliminated much of their documentation. A Pennsylvania hospital created a combination intervention record and nursing progress notes form for a 24 hour period. The results yielded a savings of 90 minutes of a registered nurses (RN) time in a 24 hour period, a 36 percent reduction in charting time, and an annual cost savings of 437,000 dollars (Lucatorto, Petras, Drew & Zbuckvich, 1991).

At Abott Northwestern Hospital in Minneapolis, Minnesota the nursing department developed the FACT charting system. "The FACT charting system realized one time savings of approximately 500,000 dollars through the redesign of repetitive, redundant forms and through increased efficiency using flow sheets and concise narrative notes" (Warne & Mc Weeny, 1991, p. 181).

Identified in the literature was the nurse managers struggle over nursing models that are cost effective. Gardner and Tilbury (1991) studied the comparative costs of primary nursing and team nursing. They concluded that primary nursing was more cost effective. The primary nursing they studied consisted of 61 percent RNs, 25 percent licensed practical nurses (LPNs), and 14 percent certified nursing assistants (CNAs). Their study revealed that over a 36 month period primary nursing produced a cost savings of 276,287 dollars. The factors they identified that contributed to this cost reduction were unit nurse administration cost, a reduction in RN proportion of staff mix, changes in patient staff ratio, a decrease use of agency nurses and a decrease in DRG length of stay with primary nursing.

Primary practice partners have been put in place in many hospitals as a strategy to make primary nursing more cost effective. Saint Anthony's Medical Center, a 303 bed Midwestern hospital, implemented a partners model in 1990 to reduce costs without sacrificing staff satisfaction. The cost savings came from changes in skill mix and converting RN FTE's to CNA positions. The total annual savings was 1,119,873 dollars. They found, via survey post implementation, that 86 percent of the staff reported an increase in the quality of care. However, turnover rates

increased for both LPN's and CNA's (Pearson & Schwartz, 1991).

A university hospital in downtown Boston implemented a nurse extender program, a version of partners in practice, because of a nursing shortage. The cost savings varied but in 1990 there was a 45,436 dollar savings to provide the same care as a control unit delivering the same number of patient days (Garfink, Kirby, Bachman & Starck, 1991).

Another nursing delivery model that has emerged as the answer to the cost dilemma is case management. Cohen (1991) found that there was an overall decrease in length of stay, increase in patient turnover, and a potential increase in patient revenue with the implementation of case management. The nursing case management model caused an initial increase in direct nursing care hours and greater intensification of ancillary services during the early phase of the hospitalized patients stay. This intense up front work facilitated an overall decrease in length of stay, and an increase in patient turnover, causing a potential increase in patient revenues of 1,319,570 dollars annually.

Success on Medicare's prospective payment system (PPS) as an outcome measure was another strategy identified in the literature. Sandella's (1990) research showed that hospital personnel appear to perform better with PPS when their work environment includes shared accountability,

quality care that is associated with cost effective behavior, and where teamwork within and outside their department is demonstrated. Success is more achievable if the organization has an environment of cooperation, open communication, active participation, trust, and high expectations for all managers, staff and administrators (Mayberry, 1991).

A common theme in all the literature was staff involvement and understanding of current health care economics. Smeltzer (1990) proposed a staff education program about Medicare's PPS to help nurses understand the cost of their care with PPS. Some comments from staff following the program clearly sum up the program's effectiveness. "I will need to organize patient care activities better so that increased efficiency can reduce the patients length of stay in the hospital." "I will institute patient teaching and discharge planning immediately after admission" (p. 3).

Participatory management has been identified in the literature as a nurse manager strategy to insure quality. Participatory management involves sharing power and information and generating trust, mutual respect and enhanced self worth of each employee (Sovie, 1992).

Shared governance is one of the most recent strategies for introducing participatory management into nursing care.

The elements essential to shared governance are: "a belief about who people are and how they interact in the work place, a concern with structuring and formating relationships to facilitate work, a recognition that each discipline has a set of values and purposes it holds central to its work" (Porter-O'Grady, 1992, p. 7). Shared governance involves the formation of staff nurse councils that address all the issues facing nursing in a facility. The foundation of each council is accountability. Roles and decision making expectations are clearly identified by each council and the organization. Included in these roles are autonomy, authority, and control of both work and its outcomes.

Kerfoot and Vigh (1991) identified the importance of a unit based financial council in a shared governance model. "Nurses must learn to assess and manage the financial impact of nursing care on the resources of the patient, the health care facility, and our society" (p. 287). The goals of the council are twofold, first to increase revenue without increasing the cost to the patient, and second is expense reduction by examining the effective use of human resources, supplies and other expenses.

Total Quality Management (TQM) is another strategy that has moved to the health care industry in an attempt to solve the quality issue. The key elements of TQM concentrate on quality improvement and employee involvement.

Quality and care of customers, people and teamwork, constant improvement and innovation and management leadership are TQM's four key components (Sovie, 1992).

Arikian (1991) described TQM as:

> TQM emphasizes a preventive approach to management, one that addresses problems before they arise, and handles concerns with a studied, long term commitment to continuous improvement in product and service. Crisis management is rarely used because the surprise aspect of doing business is eliminated through clear, open, vertical and horizontal communication, needs assessment, human resource development, statistical data, and customer feedback loops (p. 47).

TQM and shared governance have fundamentally different purposes. "Shared governance focuses on the human dynamic to facilitate teamwork, integrity, and decision making. TQM on the other hand, focuses on the work and the structures, processes, and characteristics of that work" (Porter-O'Grady, 1992, p. 7).

Another strategy identified in the literature to address quality was patient focused care. Its major focus is to streamline patient care systems to allow for a reduction in duplication of services, a decrease in costs and ultimately improved quality. Lathrop (1991) explains the

components of patient focused care. All nursing personnel are cross trained to provide 80 to 90 percent of the services their patients need, including traditional bedside nursing, basic x-ray films, routine lab work, respiratory care, and EKG's. As a result, patients seldom leave the unit and almost never require scheduling and transportation. Care givers truly "own" their patients. Care givers admit their own patients and perform medical record coding and abstraction. They perform even the mundane tasks of linen changes, tray passing, and phlebotomy. For many patients, care is protocol driven and charting is exception based. Documentation consumes less than 30 minutes per care giver per day. Three day stay patients no longer interact with 55 employees; instead they interact with fewer than 15.

The final strategy identified in the literature was the changing of the nurse manager role. The transition is from manager to leader. " Highly successful health care organizations will be characterized by interactive leaders that encourage participation, value each individual and make each feel a part of the organization" (Sovie, 1992, p. 95). Much of the literature talks about the manager learning to share the power with the staff, decisions being made at the point of service. The role of the nurse manager in a shared governance model then becomes one of building a culture on his or her unit where excellence in financial

performance and clinical quality are both internalized and equally appreciated (Kerfoot & Vigh, 1991).

Nurse managers must take a new stance, not passive but active, in reshaping nursing practice. "Managers must take the responsibility to challenge mediocre nursing practice, set high standards for patient focused care, and redesign delivery systems to promote continuity of quality of care" (Kerfoot & LeClair, 1991, p. 441).

Summary

The literature supports Nyberg's (1990) belief that economics and human care are the greatest forces in nursing administration currently. Nyberg's model emphasizes the importance of how a nurse managers world view affects how he or she deals with an organization. Nyberg states that there are true physical parts of organizations (supplies, buildings, physically compromised patients) and that there is a non physical reality that consists of feeling and experiencing human beings. The basis of her model is that a nurse manager must understand and balance economics, human care, nursing theory, organizational theory, scientific physical reality and perceptual/human care reality to be a nurse manager in the current healthcare environment.

To understand economics Nyberg states, "one must accept the scientific philosophy that stresses mathematics, categorizing, and physical reality and rules. Economics

measures dollar values and depends on numbers to reflect reality and to predict for the future" (p. 76). This was seen in Strasen's (1991) study that examined how best to measure costs.

To understand human care Nyberg states, "one must acknowledge that life includes perceptions and feelings as well as physical reality. Human care imparts meaning to relationships and purpose to life" (Nyberg, 1990, p. 76). This was seen in the literature that addressed patient focused care, shared governance, and TQM.

An understanding of organizational theory affects how the nurse manager deals with a complex organization according to Nyberg. To the physical/scientific thinker, the mechanistic model that states that the goals of the organization are goal attainment and economic outputs makes the most sense. To the humanistic or perceptual systems thinker, the goals of the organization are to survive and provide a productive and happy place for clients and employees. Nyberg believes that the nurse manager must combine the two so that he/she not only has an efficient operation but an effective operation. Sovie (1992) addressed this as a transition from manager to leader.

Another important aspect of Nyberg's model is the nurse manager understanding current nursing theory. "Nurse administrators must understand and defend the whole nature

of nursing as it is enacted in todays health care environment" (Nyberg, 1990, p. 78). An example was given about participatory management strategies for the future being not optional but absolutely necessary. "In the future, an entirely new set of relationships must exist between managers and practioners. The manager will not use force or coercion but will involve staff in decision making. The nurse administrator learns from nursing theory that certain tensions are involved in nursings future" (p. 78).

Chapter 3

THE METHOD

Research Design

The study design was a descriptive survey. The research was conducted by a mailed questionnaire. The purpose of this descriptive research was to determine what nurse managers in similar situations were doing to balance cost and quality issues. No manipulation of variables was involved. A single sample was examined.

Objectives

The primary objective of the research was to answer three questions. What strategies are nurse managers utilizing to contain costs? What strategies are nurse managers utilizing to maintain quality patient care? Do nurse managers perceive a conflict between cost containment and maintenance of quality care?

The second objective was to identify which strategies were most effective and which were least effective in the containment of costs and the maintainence of quality patient care.

Variables

The tool used to gather the data was developed to measure two concepts and their relationship to each other. The concepts being measured were cost and quality strategies being utilized by nurse managers in a hospital setting.

Many of the strategies were listed in both the cost questions and quality questions to measure how many strategies were effective in dealing with both cost and quality.

Setting

The questionnaires were mailed to the hospital that the medical/surgical nurse manager worked in. All the questionnaires were distributed in the same manner, mailed directly to the individual nurse managers at their respective hospitals.

Sample

The questionnaires were mailed to 56 medical/surgical nurse managers. The names of the medical/surgical nurse managers were obtained from the nursing offices of the hospitals. The 20 San Francisco bay area hospitals were selected by their location, north bay, south bay, east bay, and west bay.

Data Collection

A total of 56 uncoded questionnaires were mailed to medical/surgical nurse managers at their respective hospitals after the Human Subjects-Institutional Review Board reviewed and approved a request for exemption (Appendix A). The questionnaires contained a pre-addressed stamped envelope to the researcher's home address, allowing the nurse managers' names and the hospital they worked in to remain anonymous. A total of 16 questionnaires were

returned yielding a 28% response rate.

Instruments

The instrument was piloted on several colleagues to establish content validity. Four nurse managers, each masters prepared, completed the questionnaire and evaluated it for content. One vice president of nursing evaluated the instrument's content and made suggestions. Revisions suggested by these content experts were incorporated in the final version.

The questionnaire was researcher developed. It was an eleven item questionnaire consisting of open ended questions (Appendix C). The preliminary questions were demographic. Questions 1 through 5 explored strategies utilized to maximize revenue and or control cost. Questions 6 through 10 tapped strategies utilized to insure quality care. The first question of each concept (questions 1 and 6) listed the seven strategies that were identified in the literature and requested the respondent to choose one or more of these provided strategies. Space was provided for other strategies to be listed. The final question, number 11, was a yes or no question, "Do you think there is a conflict between cost containment and maintenance of quality care?" The respondent was asked to expand on the question if they answered yes.

Analysis of the Data

Upon receipt of completed questionnaires the responses were categorized and tallied. The seven strategies that were listed in question 1 provided the categories for questions 1 through 5 responses. These categories were then represented in table format. Additional strategies that did not fit into original categories were also included in the analysis.

The seven strategies that were listed in question 6 provided the categories for questions 6 through 10 responses. These categories were then represented in table format. Other strategies that were identified were represented in their own category.

The data from question 11 of the tool, "Do you think there is a conflict between cost containment and maintenance of quality care?" were included in the analysis.

Descriptive statistics were used to analyze the quantitative data. Findings are based on N=16. Qualitative data were categorized and described in narrative format.

Chapter 4

Analysis and Interpretation of Data

Description of the Sample

A total of 56 questionnaires were mailed to medical surgical nurse managers in the San Francisco Bay area. A total of 16 questionnaires were returned the response rate was 28%. The demographic data on the 16 respondents follows.

The demographic data revealed that the average age of respondent was 46 years old. All respondents were female and 50% of them had been in their present position between 1 and 5 years. The average hospital bed size was 356 beds and 69% of the respondents manage units that are between 21 and 40 beds. Fifty percent of the managers administer budgets between 1.1 million and 5 million (Table 1).

Interpretation of Data

Question 1. "On your specific unit what strategies have you utilized to maximize revenue and or control cost? " the data revealed 94% of respondents had utilized staff involvement and 75% patient care extenders. Patient care extenders are personnel, usually certified nursing assistants, that assist the registered nurse in the care of the patients. Budgeting by a dollars per unit of service (UOS) measure versus an hour per patient day (HPPD) measure was utilized by 56% of respondents and case management by

Table 1

Demographic Data

(N=16)

		n	%
Age:	30-40	2	12
	41-50	11	69
	51-60	3	19
Gender:	male	0	
	female	16	100
Years in Management:	1-5	3	19
	6-10	6	37
	11-15	5	31
	16-20	0	
	21-25	2	12
Years in present position:	1-11 months	2	12
	1-5	8	50
	6-10	4	25
	11-20	0	
	21-25	2	12

Note. Numbers do not sum to 16 due to unanswered questions.

Table 1 (continued)

Demographic Data

(N=16)

		n	%
Size of Hospital: (in beds)	100-250	7	44
	251-500	7	44
	501-1000	1	6
	1001-1500	1	6
Size of unit managed: (in beds)	21-40	11	69
	41-60	2	12
	61-80	1	6
Size of Budget Managed: (in millions)	1.1- 5.0	8	50
	5.1-10.0	3	19
	10.1-15.9	0	
	16.0-20.0	1	6

Note. Numbers do not sum to 16 due to unanswered questions.

50% of the nurse managers surveyed (Table 2).

Another strategy identified by one quarter of the respondents was work redesign (e.g., decreasing RN staff and increasing LVN/CNA staff). Nineteen percent of managers surveyed identified management restructuring as a strategy to control costs. Changes in staffing patterns were also identified by 19% of managers by varying fixed positions with census and need. Clinical pathways (plans for nursing care that identify what a patient with a particular disease or surgical procedure should accomplish from day 1 until discharge) were identified by 12% of respondents.

Other strategies that were identified by 6% of managers included pre-admission education programs to support case management, short stay patient units to save the cost of expensive intensive care or transitional care beds, hospital wide medical information systems, medical surgical flow sheet, consolidation of units when the census is low, and a procedural charge system for patient care supplies.

Question 2. "Which of these strategies do you think were most effective? " revealed staff involvement to be the most commonly identified at 37% and case management to be second at 25% (Table 3). Other strategies identified as most effective included clinical pathways,

Table 2

Strategies Utilized to Maximize Revenue/Control Cost

(N = 16)

Strategies Utilized	n	%
Staff Involvement	15	94
Patient Care Extenders	12	75
Management by Unit of Service (UOS) versus Hours Per Patient Day (HPPD)	9	56
Case Management	8	50
Charging Separately for Nursing care	7	44
Unit Based Financial Councils	2	12
Bedside Computers	0	

computerization, closure/consolidation of units and management restructuring by eliminating management positions.

Question 3 asked for identification of those strategies that were least effective in maximizing revenue or controlling costs. Charging separately for nursing care was identified by 25% of respondents as least effective and surprisingly 19% of respondents identified staff involvement as least effective, after 37% of respondents identified it as most effective in maximizing revenue and

Table 3

Most Effective Cost Control Strategies

(N = 16)

Strategies	n	%
Staff Involvement	6	37
Case Management	4	25
Patient Care Extenders	3	19
Charging Separately for Nursing Care	2	12
Management by UOS vs. HPPD	2	12
Unit Based Financial Councils	1	6
Bedside Computers	0	

controlling costs (Table 4). Other strategies identified as least effective in controlling costs were staffing by acuity, time and motion studies and the finance department dictating the budget.

Table 4

Least Effective Cost Control Strategies

(N = 16)

Strategies	n	%
Charging Separately for Nursing	4	25
Staff Involvement	3	19
Case Management	1	6
Patient Care Extenders	1	6
Management by UOS vs. HPPD	1	6
Staffing by Acuity	1	6
Time and Motion Studies	1	6
Finance Department Dictating the Budget	1	6
Bedside Computers	0	
Unit Based Financial Councils	0	

Question 4 that asked nurse managers to identify unique strategies identified to maximize revenue and or control costs that were never implemented are listed in Table 5. None of these strategies was identified by more than one respondent.

Table 5

Unique Unimplemented Strategies to Maximize Revenue/Control Costs

(N = 16)

Strategies	n	%
Pre-op Teaching by Phone	1	6
Designated Unit to Process AM Admits Before Surgery	1	6
Service Hospital Extender	1	6
Streamlining Unit Management	1	6
Dyad & Triad Models of Care	1	6
Objective Systems Review	1	6
Double staffing quidelines (for high acuity patients)	1	6
Changing to Salaried Compensation Structure	1	6
Increase Education	1	6
Acuity Factored into HPPD	1	6
Medications at the Bedside	1	6
Supplies Relocated More Accessible to Nursing Staff	1	6

Question number 5 asked respondents what other ideas they might have to maximize revenue and or contain costs. There were two strategies identified by 19% of managers, budgeting by UOS vs HPPD and work redesign, changing to a 60% RN 40% CNA skill mix. Patient care extenders and staff involvement in all aspects of unit operations were identified by 12% of respondents (Table 6).

Questions 6 through 11 dealt with the issue of quality and the strategies that nurse managers were utilizing to maintain quality care. Unit based quality assurance councils were identified by 87% of respondents. Two other strategies were identified by 69% of respondents, patient centered care and participatory management (Table 7). Other strategies identified were committees and conferences, multidisciplinary committees, joint practice committees, treatment planning conferences, and case review conferences. Management by walking around, work redesign, staff education, special role assignments such as a pharmacy liaison, and an education coordinator were some of the other strategies identified by the nurse managers to maintain quality care.

Table 6

Other Ideas to Maximize Revenue/Control Costs

(N = 16)

Ideas	n	%
Move from HPPD to UOS Budgeting	3	19
Work Redesign (60% RN 40% CNA)	3	19
Patient Care Extenders	2	12
Staff Involvement	2	12
MD Involvement	1	6
Nurse Charts in Progress Notes (multidisciplinary progress note)	1	6
Flow sheet charting	1	6
Do Not Hire Consultants to Problem Solve; Use Hospital Task Force	1	6
Standardize Care Plans	1	6
Managed Care	1	6
Management Restructure (consolidate clinical areas)	1	6
Concierge Person to Meet Hotel Needs of the Patients	1	6

Table 7

Strategies Utilized to Insure Quality Care

(N = 16)

Strategies	n	%
Unit Based QA Councils	14	87
Patient Centered Care	11	69
Participatory Management	11	69
TQM/QI	10	62
Case Management	7	44
Unit Based Shared Governance	3	19
Partners in Practice	2	12

Question 7 asked the respondents to identify which of the strategies identified in question 6 were most effective (Table 8). Participatory management was identified as most effective by 44% of respondents followed by unit based QA councils at 37%. Other strategies identified as most effective by respondents included case review, joint practice committees and a multidisciplinary approach.

Table 8

Most Effective Quality Control Strategies

(N = 16)

Strategies	n	%
Participatory Management	7	44
Unit Based QA Councils	6	37
TQM/QI	5	31
Patient Centered Care	3	19
Case Management	3	19
Partners in Practice	1	6
Unit Based Shared Governance	1	6

Question 8 which asked which of the quality control strategies identified in question 6 were least effective revealed unit based shared governance as least effective by 19% of respondents (Table 9). Two other strategies identified as least effective by respondents were case coordination and autocratic leadership.

Table 9

Least Effective Strategies to Assure Quality

(N = 16)

Strategies	n	%
Unit Based Shared Governance	3	19
Unit Based QA Councils	2	12
TQM/QI	2	12
Case Coordination	1	6
Autocratic Leadership	1	6
Patient Centered Care	0	
Partners in Practice	0	
Participatory Management	0	
Case Management	0	

Question 9 which asked if the nurse manager had thought of any unique strategies to maintain quality that were not implemented revealed that 12% of respondents identified mandatory quality monitoring by all staff as a requirement to work on a unit (Table 10). Other unique strategies identified were a mentor program, peer review, collaborative practice, and delivering discharge medications to the patients at home.

Table 10

Unique Unimplemented Strategies to Insure Quality

(N = 16)

Strategies	n	%
Quality Monitoring Mandatory for All Staff on Unit	2	12
Deliver Discharge Medications to Patients Home	1	6
Shared Governance Model	1	6
Mentor Program	1	6
Peer Review	1	6
Collaborative Practice	1	6
Critical Pathways	1	6
Lots of Ideas But No Time or Money	1	6

Question 10." What other ideas do you have to insure quality care" revealed more staff education by 19% of respondents and staff involvement by 12% of respondents (Table 11). Other ideas identified were setting standards, credentialing of nurses, physician nurse councils and exchange programs with other hospitals for staff.

Table 11

Other Ideas to Insure Qualtiy Care

(N = 16)

Strategies	n	%
More Staff Education	3	19
Staff Involvement	2	12
Setting Standards	1	6
Credentialing of Nurses	1	6
Physician/Nurse Council	1	6
Exchange Programs with Other Hospitals for Staff	1	6
Staff Decision Making and Problem Solving	1	6

The final question "Do you think there is a conflict between cost containment and maintenance of quality care?" revealed only 5 respondents (31%) answered yes and 11 (69%) respondents answered no. The second part of the question asked those who responded yes to explain.

Comments included "it takes money to make money," and "cost containment usually needs to be done quickly and CQI and participatory management are process oriented and therefore are slower." Examples that were given to further explain the latter point were, "transportation...if you cut FTE's to save money then nursing has to take on the job of transporting patients to radiology therefore allowing less nursing time at the bedside...respiratory therapy cut backs and layoffs results in nursing having to collect and deliver oxygen equipment therefore less time at the bedside...delaying filling of vacancies leads to increase use of registry nurses therefore compromising safety in specialty areas."

Staffing by HPPD was identified by all 5 respondents as a major problem in trying to maintain quality. The reasons the respondents identified were "accommodation of unscheduled admissions, staffing by HPPD/acuity leaves little room to flex, and sometimes quality suffers." Staffing a medical/surgical unit with a set number of staff based on acuity or budget without access to additional support, creates great stress for the nurses. Another explanation was that cost containment and quality care can be contradictory if HPPD are not accurate and if acuity is not factored into HPPD.

One respondent commented that Med/Surg has been seen

as a "dumping ground" for years and that the hours of care for a 24 hour period have remained the same since 1990, or decreased, yet the acuity of patients has increased. If med/surg could have flexibility for acuity, instead of HPPD, the patients would get better care and nurse job satisfaction would increase.

Staff involvement and participatory management were the number one strategies identified by the medical surgical nurse managers as most effective in dealing with the issues of cost and quality. The least effective strategies identified by the nurse managers in dealing with cost and quality were charging separately for nursing care and unit based shared governance. However, 69% of respondents did not see a conflict between cost and quality but did identify a need for a different method of measuring the cost of nursing care.

Chapter 5

Conclusions and Recommendations

Conclusions

The data supported the literature that identified at least 10 strategies that have been implemented to assist the nurse manager in attempting to balance cost and quality issues in the hospital setting.

The need for a change from the traditional hour per patient day (HPPD) budgetary parameter was identified in the data. There was frustration among medical/surgical nurse managers, as noted in the data, with the accuracy of using an hour per unit of service measure in measuring nursing productivity and efficiency. The data supports the conversion to a dollar per unit of service (UOS) measure with 56% of respondents utilizing a dollar per UOS measure and 12% identifying it as most effective.

The literature identified that charging separately for nursing care could be effective in maximizing revenue. The data did not support the use of a separate charge system for nursing care. Twenty five percent of respondents found charging separately for nursing care as least effective in maximizing revenue and or controlling costs.

Bedside computers were identified in the literature as a cost savings strategy; however, the data did not support the use of bedside computers. None of the respondents was

utilizing bedside computers. As stated in the literature there is a cost of implementing such a system and many of the San Francisco Bay area hospitals are not in a financial situation that lends itself to such an expense.

The literature suggested streamlining of documentation as a cost saving strategy. The data revealed 12% of respondents had made some type of change in the documentation on their units; however, none of the respondents identified streamlined documentation as most effective.

Many types of nursing care delivery models were identified in the data as cost effective strategies. The one strategy identified that supports the literature is the increased use of certified nursing assistants (CNA) on medical/surgical nursing units. The CNA titles range from partners in practice to patient care extenders.

The literature recommended staff education and involvement as effective for financial success of a unit and a hospital. The data revealed that 37% of respondents identified staff education and involvement as most effective in maximizing revenue and or controlling costs. Staff education and involvement were also identified by 19% of respondents as most effective in assuring quality patient care.

Participatory management and shared governance were identified in the literature as quality control strategies.

The data support the literature with 69% of respondents identifying participatory management as a quality control strategy utilized and 44% of them identified it as the most effective quality control strategy. Although participatory management often preceeds shared governance the majority of respondents had not transitioned to unit based shared governance. This might account for the discrepancy in the responses.

Total quality management (TQM), as stated in the literature, is new to health care. The data revealed that 62% of respondents identified TQM as a strategy they had utilized and 31% identified it as most effective in quality control. Another new concept identified in the literature was patient-centered care. The data revealed that 69% of respondents had utilized patient-centered care as a quality control strategy and 19% identified it as most effective.

The final strategy identified in the literature was the changing of the nurse managers role. The data that addressed participatory management and shared governance reveal the change of the nurse managers role from one of dictator to one of coach and leader.

The data support Nyberg's (1990) belief that economics and human care are the greatest forces in nursing management currently. All of the strategies identified by the medical/surgical nurse managers revealed how they must

understand and balance economics, human care, nursing theory, organizational theory, scientific/physical reality and perceptual/human care reality to be nurse managers in the current, ever changing, healthcare environment.

Limitations

The first limitation was the low (28%) response rate. Because of the response rate the sample might not be representative of the medical/surgical nurse managers in the San Francisco Bay area or generalizable to nurse managers in the United States. All questions were answered on the questionnaires except 4 of the respondents did not fill in the question that asked the size of budget they administer.

Another limitation was the population size. Only 56 medical surgical nurse managers were invited to participate. Most hospitals have cut back their management staff and therefore only had 1 or 2 medical/surgical nurse managers in the institution. Once the questionnaires were mailed to the hospital where the nurse manager worked, there was a problem in getting them to the correct unit. In two of the 20 hospitals, the questionnaires were lost and had to be remailed, which hampered the process. These questionnaires were received during a holiday season and therefore might have further decreased the response rate.

The open ended questions caused some difficulty in

categorizing responses. Since very few common strategies were identified, many of the responses were not able to be categorized and therefore stood alone. The term effectiveness was not operationally defined and therefore might have had varied meanings for the subjects.

One last limitation was that no new common strategies were identified. If there had been a higher response maybe more strategies would have been identified and the possibility of common new strategies arising would have been greater.

Recommendations

Because of the encouraging results with a relatively small response rate, studies identifying the strategies being utilized by nurse managers to balance cost and quality should be continued. The results of this study indicate that it should be repeated using a larger random sample. Questions to be addressed are: (1) What are the effective strategies being utilized to maximize revenue and or contain costs? (2) What are the effective strategies being utilized to maintain quality care? (3) What are the effective financial instruments that measure the cost and quality of nursing care? A more precise means of measuring nursing care costs is needed and therefore more research should be done to identify an effective method. The tool could

be improved by providing respondents options to choose from on more of the questions. Future research is needed to investigate the relationship among staff involvement, participatory management and shared governance in relation to cost containment and maintenance of quality patient care.

The economics of health care in the United States is changing rapidly. A federal budget deficit, cuts in Medicare and the need for universal access to health services intensify the concern regarding the issues of cost in relation to the maintenance of quality patient care. Nurse managers must have the knowledge and skills to be the leaders at the cutting edge of the turbulent environment of health care. The nurse manager becomes a leader in shaping the profession of nursing for the future. His or her strategies are important to identify to allow a further understanding of the best way to maintain the profession of nursing in a health care world that is changing.

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APPENDIX A

Human Subjects Approval

SJSU SAN JOSE STATE UNIVERSITY

A campus of The California State University

Office of the Academic Vice President • Associate Academic Vice President • Graduate Studies and Research
One Washington Square • San José, California 95192-0025 • 408/924-2480

To: Jo-Ann Iacobellis
1554 Orangewoord Dr.
San Jose, CA 95121

From: Serena W. Stanford Serena W. Stanford
AAVP, Graduate Studies and Research

Date: November 5, 1992

The Human Subjects-Institutional Review Board has reviewed and approved your request for exemption from Human Subjects Review for the proposed study entitled:

"Nurse Manager Cost/Quality Strategies"

Provided that there are no changes in the procedure proposed, you may proceed with this study without further review by the Human Subjects-Institutional Review Board. You must notify the Human Subjects-Institutional Review Board of any changes in the subject population or procedure for this study

I do caution you, however, that Federal and State statutes and University policy require investigators conducting research under exempt categories to be knowledgeable of and comply with Federal and State regulations for the protection of human subjects in research. This includes providing necessary information to enable people to make an informed decision regarding participation in your study. Further, whenever people participate in your research as human subjects, they should be appropriately protected from risk. This includes the protection of the confidentiality of all data that may be collected from the subjects. If at any time a subject becomes injured or complains of injury, you must notify Dr. Serena Stanford immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised when people participate in your research as human subjects, each subject needs to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate or withdrawal will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted.

If you have questions, please contact me at 408-924-2480.

APPENDIX B

Consent Letter

SJSU SAN JOSE STATE UNIVERSITY

A campus of The California State University

College of Applied Sciences and Arts • *Department of Nursing*
One Washington Square • San José, California 95192-0057 • 408/924-3130 • FAX 408/924-3135

November 1992

Dear Nurse Manager,

I have been a nurse manager for ten years and have struggled with cost and quality issues. I need your help in conducting a study to identify the strategies being utilized by nurse managers to control costs and maintain quality.

You should understand that your participation is voluntary and that choosing not to participate in this study will not affect your relations with San Jose State University.

The attached two page questionnaire is confidential. The data will be reported in the aggregate. The questionnaire consists of 11 short answer questions and should take about 20 minutes to complete. All results will be shared with you on completion of the research.

Please return the questionnaire in the enclosed, pre-addressed, stamped enveloped as soon as possible.

If you have any questions about this study I will be happy to talk with you. I can be reached at (408) 238-7844. If you have questions or concerns about research subjects rights please contact Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research at (408) 924-2480.

Thank you for your support and participation.

Sincerely,

Jo-Ann Iacobellis
Masters Student
San Jose State University

APPENDIX C

Questionnaire

NURSE MANAGER
COST/QUALITY STRATEGIES
QUESTIONNAIRE

Age:	_____	Size of Hospital:	_____
Gender:	_____	Size of Unit(s) you Manage:	_____
Years in Management:	_____	Size of Budget(s) you Manage:	_____
Years in Present Position:	_____	Types of Patients:	_____

1. On your specific unit(s) what strategies have you utilized to maximize revenue and/or control cost? *(please check all appropriate boxes)*

Charging Separately for Nursing Care	☐	Bedside Computers	☐
Staff Involvement	☐	Unit Based Financial Councils	☐
Case Management	☐	Patient Care Extenders	☐
Other *(please explain)*	☐	Manage Budget by UOS vs. HPPD	☐

_____

_____

_____

2. Which of these strategies do you think were most effective?

3. Which of these strategies do you think were least effective?

4. Have you thought of any unique strategies that were not implemented?

5. What other ideas do you have to contain cost?

6. What are you doing on your unit(s) to insure quality care?

Patient Centered Care	☐	TQM/QI	☐
Partners in Practice	☐	Participatory Management	☐
Unit Based QA Councils	☐	Case Management	☐
Unit Based Shared Governance	☐	Other *(please explain)*	☐

_____

_____

_____

7. Which of these strategies do you think were most effective?

8. Which of these strategies do you think were least effective?

9. Have you thought of any unique strategies that were not implemented?

10. What other ideas do you have to insure quality care?

11. Do you think there is a conflict between cost containment and maintenance of quality care? ☐ Yes ☐ No

If yes, how? *(please give one or two examples)*

Return to: Jo-Ann Iacobellis
1554 Orangewood Drive
San Jose, CA 95121