1989

Perceptions of Registered Nurses Toward Two Patient Classification Systems

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PERCEPTIONS OF REGISTERED NURSES TOWARD TWO PATIENT CLASSIFICATION SYSTEMS

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A THESIS

Submitted to
Grand Valley State University
in partial fulfillment of the requirements for the
degree of

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

1989

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ABSTRACT

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Patient classification systems provide a means of delineating nursing activities that a patient requires. The majority of patient classification systems consist primarily of delegated services or functional tasks. Two other areas of nursing care, independent and interdependent services, are not a part of most workload measurement systems.

Two patient classification systems were developed for this study. One was designed using primarily delegated services, and the second designed according to the Clinical Practice Model of Nursing (Wesorick, 1988) and consisted of independent, interdependent, and delegated services. The reseacher studied how registered nurses perceived each instrument: how acceptable was each instrument to them, and how did each reflect their professional practice.

A videotaped case study was reviewed by 34 subjects. They then classified the 'patient' using each patient classification instrument, and evaluated each instrument using a 5-point semantic differential research questionnaire.

A difference between instruments was revealed using the Hotelling's T^2 test. The practice model-oriented instrument was perceived as more reflective of professional practice. It was viewed as more complete in identifying a patient's holistic nursing care needs, and more strongly integrated with other nursing records. The instrument based primarily on delegated services was viewed as easier to use.

To Maurice, Meghan, and Nathan

Acknowledgments

With sincere appreciation to Donna Larson, R.N., Ph.D., Bonnie Wesorick, R.N., M.S.N., and John Megley, Ph.D., for your professional insight and guidance.

With gratitude to the Butterworth Hospital Foundation for their generous financial support.

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Chapter 1

Introduction

Patient classification is the categorization of patients according to an assessment of their nursing care requirements over a specified period of time. The category of care that each patient is grouped into (category I, II, III, or IV) is then translated into a workload measurement of nursing care time required. This 'nursing workload' information is then used in making staffing and scheduling decisions on a daily and long-range basis. The primary purpose of patient classification systems is to capture meaningful 'nursing workload' information so that staffing levels can vary according to the varied nursing workload.

Most patient classification systems used in hospitals today consist of a list of nursing care activities delineated on the instrument. The specific nursing care measures or 'critical indicators' on the form represent those activities or tasks, which, if they occur, will have the greatest impact on nursing care time. This style of patient classification system is called a 'factor evaluation' system. Nursing activities related to the patient's ability to feed and bathe himself, his mobility status, special procedures and treatments, and observational needs are typically found on these instruments.

In designing a patient classification system, the nursing activities or 'critical indicators' delineated on the instrument may include activities that are valued and meaningful to nursing. They may designed so that they reflect the philosophy and goals of an institution, the nursing division, and/or the profession of nursing. For example, if a nursing division valued instructing patients toward independence as their

focus and philosophy of care, then a number of nursing care activities reflecting educational needs of patients could be listed on the instrument. If the profession of nursing valued independent nursing orders, or nursing diagnoses, a patient classification system could include nursing diagnoses as the 'critical indicators.'

The majority of patient classification systems used in hospitals are based on medical orders that are carried out by nurses, or delegated nursing services. Workload measurement systems have often included delegated services only, such as 'administer medications,' 'take vital signs every 4-hours,' or 'irrigate naso-gastric tube.' A number of these physician-driven tasks are the critical indicators to measure workload on patient classification systems. Time and motion studies have allowed these delegated services to be tagged with an average time value, making them relatively easy to quantify on patient classification systems. Nurses have often evaluated their workload solely by the number and complexity of physician-ordered tasks that need to be carried out.

With the development of standard nursing diagnosis nomenclature, professional nursing practice has been more clearly defined. Professional nurses are able to communicate in a common language the patient problems they have diagnosed, and are monitoring or treating. Nursing diagnosis nomenclature has delineated a second area of nursing practice: independent services. With the development of nursing diagnosis nomenclature to summarize the nurse's assessment, and well-developed standards of care to delineate nursing interventions and evaluations required for each nursing diagnosis, nursing has the means to design a patient classification system that includes independent nursing services.

A third area of nursing practice, as delineated in the Clinical

Practice Model of Nursing by Wesorick (1988), includes interdependent services. Interdependent services are related to the Medical Diagnostic Categories or Treatment Plan. The nurse does not diagnose and treat from this category, but assesses, monitors, detects, and prevents the potential physiological complications associated with the specific category or treatment. For example, standards of care for interdependent nursing services include 'Care of the patient with Congestive Heart Failure,' and 'Care of the patient with Angina.' This area of nursing service consumes a major portion of the nurse's workload, but is not a part of workload measurement systems.

In hospitals using independent, interdependent, and delegated nursing services in providing patient care, a patient classification system based primarily on delegated services does not reflect the holistic nursing care needs of the patients. A system based primarily on delegated services does not reflect the entire scope of nursing practice; independent and interdependent services are not a part of the workload being measured on such a system.

Problem statement.

The Clinical Practice Model of Nursing (Wesorick, 1988) delineates three aspects of professional nursing services: independent, interdependent, and delegated services. If nursing practice consists of all three of these varied services, then a quantification instrument to measure 'nursing workload' should include these three areas of nursing practice.

A patient classification system was developed for this study that includes the three areas of professional nursing practice. It was

designed according to the Clinical Practice Model of Nursing (Wesorick, 1988). A second system was developed that was based primarily on delegated services, much like patient classification systems used in most hospitals today.

The researcher studied how registered nurses perceived each patient classification instrument. Which instrument was most acceptable to them, and how did they feel each reflected their professional practice? A questionnaire was developed using a 5-point semantic differential measuring technique. It consisted of questions related to how the nurses perceived each Patient Classification instrument. The responses of the nurses toward each instrument were studied, and the differences in their responses were analyzed.

Chapter 2

Review of the Literature and Conceptual Framework

Review of the literature.

Giovannetti (1978), in looking at the future direction of patient classification systems stated, "the standard nomenclature of the time becomes the basis for the identification and ordering of groups. And, as the nomenclature changes, so will the basis of the classifications." She went on to state the two new nomenclatures to describe the nursing process that were emerging; patient problems and nursing diagnosis. Giovannetti believed that "it seemed reasonable to expect that as the validity of these descriptions became more evident, one or both may well lead to new patient classification systems which, in turn may be more responsive to the true nature of the patients' care requirements." In the eleven years since this publication, nursing diagnosis nomenclature has been defined, studied and standardized. Standards of care have more clearly defined nursing activities of assessing, monitoring, detecting, and preventing potential physiological complications, and diagnosing and treating the human response to actual or potential health problems.

The possibility of standardizing a patient classification system based on nursing diagnosis nomenclature was cited in the Proceedings of the Third and Fourth National Conferences of the Classification of Nursing Diagnoses with reference to Giovanetti. In reviewing pertinent issues related to current nomenclature and classification systems (from the Proceedings of the Fifth National Conference on the Classification of

Nursing Diagnoses), Kritek (1984) saw a remarkable degree of overlap of shared terminology with patient classification systems and nursing diagnosis classification systems.

Development of Patient Classification Systems.

In a program of Progressive Patient Care discussed by Abdellah & Strachan in 1959, the organization of facilities, services, and staff around the medical and nursing needs of the patient was discussed. Two studies were carried out to determine the nursing functions and skills required on different units (Intensive Care, Intermediate Care, Self Care, Long Term Care, and Home Care). In one study, patients were classified daily according to their need for physical or hygienic care, observation of physical signs and symptoms, medications and treatments, instruction, diagnostic and therapeutic care, and observation of behavior. Four categories were developed (A, B, C, and D) representing the degree/amount of skilled, technical nursing care required. A nurse utilization study was also conducted to determine the levels of skills required on the various units. Abdellah and Strachan also developed a formula for determining desirable bed allocations for each Progressive Patient Care Unit in hospitals of various sizes, suggested nurse staffing patterns, and developed a methodology for determining costs. They also stated that the role of the professional nurse in a Progressive Patient Care hospital needed to be defined, questioning the distinction between the professional nurse therapist and a nurse technician. As these questions began to be answered, they felt that the professional nurse's role might begin to be defined.

An article by Fray (1984) described the process of developing a

patient classification system (PCS) using nursing diagnoses as part of the system design. In this 'Accountability-Classification Instrument for Orthopaedic patients,' nursing activities on the classification form were identified and categorized under related nursing diagnoses. The major reason that the author utilized nursing diagnoses was to facilitate the development of clinical judgment in those nurses for whom the nursing diagnostic process was new. The instrument was designed to serve the dual purpose of providing a convenient and accurate means of documenting patient care given, as well as arriving at the classification of the patient based on the amount of nursing time spent. Using this format, a single form was used to document nursing care, assess staffing needs, and compute patients' bills (Higgerson & Van Slyck, 1982).

At the UCLA-Neuropsychiatric Institute, a patient classification system was developed based on the Johnson Behavioral System Model of Nursing. The significance of utilizing a model for a patient classification system was discussed by Auger and Dee (1983). When based on a model of nursing, the patient classification system provided a frame of reference for the systematic assessment of patient behaviors and the development of nursing interventions. This common frame of reference among staff enhanced communication and agreement regarding identified patient behaviors, and allowed for consistency and continuity in the delivery of patient care by staff on all shifts. The PCS developed at the UCLA-Neuropsychiatric Institute incorporated both the prototype evaluation and factor evaluation designs. The intent was to address the relationship between specific patient behaviors and the corresponding nursing interventions required by these behaviors. The model addressed eight subsystems of behavior that were assumed to be universal and of primary

significance to all persons. Each subsystem of behavior was operationalized in terms of critical adaptive and maladaptive behaviors. The behaviors were ranked in three categories according to their assumed level of adaptiveness. Nursing interventions derived from an analysis of existing nursing care plans were also ranked in three categories based on the frequency and intensity of nursing contact. This patient classification tool provided the basis for the clinical application of the Johnson Behavioral Model in terms of patient assessment, nursing care planning, intervention, and evaluation of patient progress.

Halloran, Patterson, and Kiley (1987) developed a nursing diagnosis-based patient classification system. This tool identified all 61 of the diagnoses, and in using this standardized terminology, the relative need for nursing care was defined. Each patient was classified daily by using a hand-held computer with a wand scanner to identify the bar-coded nursing diagnoses that were appropriate for that patient. The nursing diagnosis-based patient classification system was used to capture information about nursing dependency in order to help allocate nursing resources and support the judgments bedside nurses make. The nursing diagnoses were not weighted with time values, as it had not been determined that the treatment for grieving was more or less time consuming than that for incontinence. Rather, the system collected data describing patients' nursing care dependency.

The patient classification system discussed in the Halloran, et al, article is similar to the system developed for this study. The instrument design was based on nursing diagnosis nomenclature, just as the study instrument was with the independent standards of care. Unlike the study instrument, Halloran's system was not designed using interdependent and

delegated nursing services, nor was it based upon a model of nursing. A most interesting aspect of Halloran's discussion was his belief that professional nursing services cannot be tagged with a time value.

Nagaprasanna (1988) surveyed hospitals whose bed capacities were greater than 400 to gather information about their patient classification systems related to satisfaction, acceptance, reliability, cost, and benefits. From a usable sample size of 213 hospitals, he found that 38% of the hospitals were dissatisfied with their patient classification system even though they had been using the system for several years. The respondents gave their systems an 'overall rating' of 3.0 on a 1 to 5 point scale (1 being low and 5 being high). Ease of classification was the highest-rated factor at 3.8, acceptance by hospital administration was rated 3.13, and acceptance by nurses at 3.25. These findings may encourage patient classification experts to examine current patient classification systems to determine what factors may make the systems more acceptable to nursing staff and administrators.

Perceptions.

In searching for a concrete way to deal with perception clinically, it became evident to Perreault (1985) that the perceptual process is a complex chain of events involving responses of the perceiver and the environment. She developed a conceptual framework to discuss perception, and defined it as follows: through the process of hearing, seeing, smelling, tasting, and touching--combined with an appreciation (it is received), an interpretation (it has meaning), and a valuation (it is important) of these stimuli--the individual is able to respond to self, others, and the environment. Although perception involves the complex

interaction of many responses (physiological, psychological, sociological, behavioral, and environmental), it can be simply stated as one's own representation of reality.

A number of studies have been conducted in nursing, physical therapy, and other health care fields with regard to perceptions. Staff nurses' perceptions of autonomy (Alexander, Weisman, & Chase 1982), self-perceived creativity of registered nurses (Pesut, 1988), and changes in physical therapy students' perceptions of the professional role (Fincher, Pinkston, & Harden, 1987) have been studied.

In this research study, nurses were asked a number of questions about how they perceived various aspects of two patient classification systems. The many variables that interact to form one's perceptions cannot all be delineated for this study. However, specific questions were asked of the participants in the 'Personal Profile' to ascertain if certain variables influence their perceptions of the two patient classification system instruments.

Conceptual framework.

This study used the Clinical Practice Model of Nursing (Wesorick, 1988) as its organizing framework. The Clinical Practice Model defines professional nursing and delineates its services. The purpose of the practice model is to operationalize professional nursing in the clinical setting. The differences between professional nursing and institutional nursing, as stated in the model, mirror the differences between the two Patient Classification Systems studied in this research. One Patient Classification System was based on the practice model and included independent, interdependent, and delegated professional services. The

second Patient Classification System reflected institutional nursing, as it was based primarily on physician-driven nursing care tasks.

The goal of the nurse in the Clinical Practice Model (Wesorick, 1988) is to support the maximum well-being of consumers/patients regardless of life circumstances (such as illness, pain, poverty, ignorance, and death), and to empower consumers to heal themselves. Nursing goals are realized by diagnosing and treating the human response (of the 'whole patient') to actual or potential health problems. The 'whole patient'/consumer includes the physical, psychological, sociocultural, and spiritual dimensions of man.

The Clinical Practice Model (Wesorick, 1988) is based on the following premises:

(1) The nurse is licensed to provide independent professional services to the consumer.

(2) The consumer is an 'irreducible whole' for whom nurses are privileged to serve.

(3) The nurse must be clear on professional services to be rendered.

(4) The nurse is professionally and legally accountable to deliver services appropriate to an individual person/consumer's needs.

(5) The consumer, society, and health care system are changing; we no longer live in the Industrial Age, but in the Information Age.

(6) The Industrial Age led to Institutional Nursing: dependent, task-dominated practice wherein the nurse treats the human response only as directed by the physician, hospital policies, and procedures.

(7) The Information Age demands Professional Nursing: independent process-dominated practice wherein the nurse makes a diagnosis and treats the human response to actual or potential health problems.

(8) Nurses are accountable to be clear and unified on their professional role and services.

The Clinical Practice Model delineates three types of professional nursing services/orders that nurses are responsible for: independent, interdependent, and delegated. These three types of services provide the basis of the practice model-oriented patient classification system so that the entire scope of nursing practice is included when measuring workload.

Independent professional nursing services are those related to the diagnosis and treatment of the human response to actual or potential health problems. They consist of the nursing diagnosis taxonomy, and are defined further by well-developed standards of care for each independent nursing order/nursing diagnosis. Specific standards of care have also been developed for the interdependent services. Interdependent services are related to the Medical Diagnostic Categories or Treatment Plan. The nurse assesses, monitors, detects, and prevents potential physiological complications associated with the specific category or treatment (Wesorick, 1988). Delegated services refer to medical orders and interventions which are carried out by nurses.

The standards of care for the independent and interdependent professional nursing services serve to delineate and define these services. They provide consistent expectations of professional nursing practice.

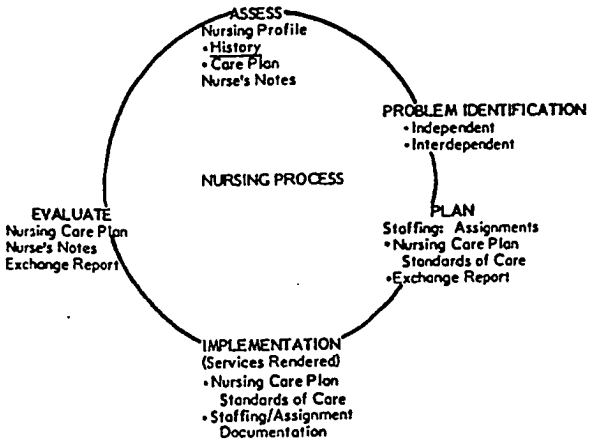
The Clinical Practice Model is embodied in a clinical documentation/communication system that provides the tools to facilitate the delivery of professional services. The Nursing Profile consists of a holistic assessment tool, nursing care plan, and a transfer/discharge summary. The model also consists of process-based nurse's notes and a

special format for exchange report. The clinical documentation/communication tools are well integrated and nursing process oriented.

The practice model-oriented Patient Classification System developed for this study would integrate well with the other Clinical Practice Model systems and tools. In fact, it is a system missing from the model. A workload measurement instrument based on the practice model would bridge the standards of care to cost-effective patient care (care required to care delivered).

The components of the Clinical Practice Model (Wesorick, 1988) are schematically shown in Figure 1 as consisting of all phases of the Nursing Process. The systems and tools that are part of the practice model are operationalized by the assessment, problem identification, planning, implementation, and evaluation phases of the nursing process.

Figure 1. Components of the Clinical Practice Model.



Note. From Standards of Nursing Care: Professional Practice Model by Bonnie Wesorick, in press, Philadelphia: J.B. Lippincott. Copyright 1988 by Bonnie Wesorick. Reprinted by permission.

The phases of the nursing process are also the steps used in classifying patients with a practice model-oriented Patient Classification System.

The assessment phase includes gathering patient information from exchange report, obtaining verbal and nonverbal patient information from patient rounds, communications with the family, data from technical equipment (stethoscope, EKG), and from written reports (lab data, nurses notes, progress notes). Patients are classified four hours into the shift so that the nurses have had time to assess them and review written communications. The cues obtained during the assessment phase direct the nurses to the patient problems/nursing diagnoses that pertain to the patients, and to the intensity of assessment/evaluation/or intervention that is needed. This problem identification phase would include actually classifying patients with a patient classification system. Independent, interdependent, and delegated nursing services assessed as needed for patients would be classified.

Information from the practice model-oriented Patient Classification System would then be used to calculate staffing needs/nursing workload in the Planning phase.

The implementation phase would include providing nursing care in order to meet the patient's and family's assessed needs. This phase also includes providing flexible staffing levels each shift to correspond to the projected nursing care needs of the patients.

The evaluation phase includes documenting care given and the patient's/significant other's response to the care. This would include evaluating staffing levels--were they appropriate for providing safe, comprehensive, cost-effective nursing care?

As the Clinical Practice Model (Wesorick, 1988) serves to operationalize professional nursing in the clinical setting, one 'system' that would enhance the environmental support for professional nursing is a Patient Classification System based on the model.

Summary and implications for the study.

The literature indicates that some changes are being made to current patient classification systems so that they include nursing diagnoses. With the growing use and understanding of nursing diagnosis nomenclature by nursing divisions in hospitals, the trend for hospitals to revise their patient classification systems so that they reflect nursing diagnoses will probably intensify. With standards of care to define each nursing diagnosis clearly, nursing diagnoses are more amiable to measurement on a workload measurement system.

The Patient Classification System designed for this study with independent, interdependent and delegated nursing services is new to nursing. This is because the Clinical Practice Model of Nursing developed by Wesorick (1988) is new and unique. The Model has, however gained national recognition, and is currently being used in thirteen pilot hospitals in the United States. The hospital where the practice model was developed has been working on standards of care for each independent and interdependent nursing order. These standards are the basis of the model, because they delineate and clearly define professional nursing practice at that hospital. The nurses who have worked on the development of the Clinical Practice Model have altered a number of forms and nursing systems so that they integrate with the model. This great challenge and commitment has resulted in a well-integrated, clearly defined and workable

'system' operationalizing professional nursing practice. One piece of this larger system is a Patient Classification System based on the model. This initial study on how nursing personnel perceive a Patient Classification System based on the model may provide information to direct further development of the classification system.

Research questions.

In an institution using the Clinical Practice Model of Nursing (Wesorick, 1988) in providing nursing care:

(1) Would a Patient Classification System based on independent, interdependent, and delegated services be more acceptable to nursing personnel than a system based primarily on delegated services?

(2) Would a Patient Classification System based on independent, interdependent, and delegated services be perceived by professional nurses as more reflective of their practice than a system based primarily on delegated services?

Hypotheses.

(1) A Patient Classification System based on the Clinical Practice Model of Nursing (Wesorick, 1988) and designed with independent, interdependent, and delegated nursing services will be more acceptable to professional nurses than a system based primarily on delegated nursing services.

(2) A Patient Classification System based on the Clinical Practice Model of Nursing (Wesorick, 1988) and designed with independent, interdependent, and delegated nursing services will be perceived by professional nurses as more reflective of their practice than a system

based primarily on delegated nursing services.

Definition of terms.

A Patient Classification System (PCS) refers to the instrument and process of classifying patients according to an assessment of their nursing care requirements over a specified period of time. Patient classification system instruments are the tools or forms used to classify patients.

Professional nursing practice referred to in this study is an independent, process-dominated practice wherein the nurse makes a diagnosis and treats the human response to actual or potential health problems (Wesorick, 1988). This is in contrast to institutional nursing which is defined as a dependent, task-dominated practice wherein the nurse treats the human response only as directed by physician, hospital policies and procedures (Wesorick, 1988).

Independent professional nursing services/orders are those nursing services related to the diagnosis and treatment of the human response to actual or potential health problems (Wesorick, 1988). Interdependent professional nursing services/orders are those nursing services related to the Medical Diagnostic Categories or Treatment Plan. The nurse does not diagnose and treat the Medical Category, but assesses, monitors, detects, and prevents the potential physiological complications associated with the specific category or treatment (Wesorick, 1988). Delegated professional nursing services/orders include the medical orders/interventions which are carried out by nurses such as inserting an N/G, administering medications, applying dressings, etc.(Wesorick, 1988).

The nursing diagnosis nomenclature or taxonomy are the terms used to

summarize assessment data. They describe patients' actual or potential health problems which nurses are capable and licensed to treat (Gordon, 1976). Nursing diagnoses include the independent professional nursing orders. Specific, delineated nursing functions for each nursing diagnoses/independent order and interdependent order are defined in written standards of care.

Acceptability is defined in this study as giving approval that something is pleasing and liked. It is operationalized by questions 4, 5, 9a, 9b, 10a, 10b, 10c, and 11 on the questionnaire (Appendix C).

Reflective of practice is defined in this study as how something mirrors or reflects one's views and beliefs about their professional nursing practice. It is operationalized by questions 1, 2, 3, 6, 7, and 8 on the questionnaire (Appendix C).

A Patient Classification System based primarily on delegated services is defined in this study as a nursing workload measurement system consisting primarily of physician-ordered nursing activities, and is also referred to as Instrument A (Appendix A).

A Patient Classification System based on the Clinical Practice Model of Nursing is defined in this study as a Patient Classification System that includes independent, interdependent and delegated nursing services, and is also referred to as Instrument B (Appendix B).

Chapter 3

Methodology

The patient classification systems used in this study were developed by the researcher. After developing a number of factor evaluation patient classification systems for acute care hospitals, the researcher became uncomfortable with how task-oriented these systems were. In viewing nursing as more process- rather than task-oriented, the researcher began to rethink the design and content of classification systems being used. The systems being used and discussed at patient classification conferences and in the literature did not reflect the independent and interdependent aspects of professional nursing practice.

The researcher realized that developing a new patient classification system would be a large undertaking. In order to have a workable, meaningful, valid and reliable system, many studies and discussions would need to take place. In fact, over four years of development time were invested by the researcher in the tools used in this study.

Due to time and manpower constraints, the researcher in this study was not attempting to put into practice a totally workable, valid and reliable patient classification system. Rather, this study represented a first step toward this end.

This study introduced the concept of a classification system based on the Clinical Practice Model of Nursing (Wesorick, 1988) and investigated how nursing personnel perceived it. How acceptable was the instrument to the nurses? Did they feel it reflected their practice--was it congruent with their role as a registered nurse? How did they feel the instruments reflected their actual workload? It was hoped that this initial study

would direct nursing staff and administrators toward additional work and study of nursing workload measurement systems.

Instruments.

Two patient classification system instruments were developed by the researcher for this study: an instrument consisting primarily of delegated nursing services, and an instrument based on the Clinical Practice Model of Nursing (Wesorick, 1988) and consisting of independent, interdependent, and delegated nursing services (see Appendices A & B). The two patient classification instruments were studied and evaluated by nurse experts in patient classification and nurse experts in professional practice at a 530 bed teaching hospital in the Midwest to determine content validity. The nurse experts systematically examined the instruments and definitions to assure that they were representative of the domain or content of 'Professional Nursing Services.' The standards of care from the study hospital were also used in working with the instruments and definitions. The nurse experts consisted of the Clinical Nurse Specialist for Professional Practice, the coordinator of the Patient Classification System at the study hospital, the Special Projects Coordinator for Adult Critical Care, Assistant Department Managers from Medical Intensive Care, Medical Intermediate Care, and a Medical-Surgical unit, and two staff nurses who were experts with the practice model.

Two instruments were used to collect data: (1) the 'Questionnaire regarding Patient Classification Instrument,' and (2) the 'Personal Profile.' The 'Questionnaire regarding Patient Classification Instrument' was developed by the researcher and used the semantic differential measuring technique (Appendix C). A 5-point bipolar rating scale measured

the attitudes of registered nurses toward the two patient classification systems being studied. The direction of the adjective pairs was randomly reversed to prevent response biases. The counterbalancing of positively and negatively worded statements served to minimize the bias of acquiescence response set.

The questionnaire developed resulted in the collection of interval-level data. Numbers on the scale were circled by the participants, so that the ranges in-between whole numbers were not obtained. The questionnaire was designed by the researcher with the assistance of a statistics professor at Grand Valley State University, statistics students at GVSU, and thesis committee members. Content validity of the questionnaire was determined by the group of nurse experts at the participating hospital.

A response set factor that may influence or bias responses with the scaling procedure is social desirability, the tendency to misrepresent one's true attitudes by giving answers that are consistent with prevailing social mores. Registered nurses may view the Clinical Practice Model (Wesorick, 1988) and the Patient Classification System based on this model as what is professionally acceptable in nursing and at the study hospital, but they may not agree with it or value it. Their responses may be altered, however, by the social desirability response set. In order to control for this potential bias, the subjects were asked if they are or have been a representative for Professional Practice. They were also asked on the 'Personal Profile' how they felt about the practice model in general. The data were analyzed using these variables also. Further, it was stressed to the participants that their responses were anonymous, and they were encouraged to complete the questionnaires honestly.

Another extraneous variable might have been the participants' attitude toward patient classification systems. The participant's were asked on the 'Personal Profile' how they felt about patient classification in general. This variable was also analyzed separately.

After completing the research questionnaires, the participants completed the 'Personal Profile' (Appendix D). Demographic information obtained from the profile included the length of time they have used patient classification systems, the length of time they have been a registered nurse, and how long they have worked at the hospital participating in the study. The length of time they have worked with the practice model, their educational background, and work status (full-time, part-time, weekend choice, shift worked, length of shift worked) was also ascertained. Information such as whether or not the participants were currently students, the unit on which they worked, and whether they were on-duty or off-duty when they took part in this study was also obtained. The demographic information about the participants was analyzed to determine if any of these variables were statistically significant.

The research proposal was approved by the Nursing Research Committee at the hospital and the Human Subjects Review committee at the University. Informed consent forms were completed by each participant in the study (Appendix E).

A pilot study was carried out at an acute-care medical center in the Northeast Wisconsin. This medical center was a pilot hospital for the Clinical Practice Model (Wesorick, 1988). Four registered nurses reviewed a case study and then classified the 'patient' using the Patient Classification System based primarily on delegated services (Instrument A), and the Patient Classification System based on the practice model

(Instrument B). The nurses completed a research questionnaire after working with each Patient Classification System. They then filled out a personal profile.

The participants in the pilot study provided feedback to the researcher regarding the design, mechanics, clarity, and completeness of the research instruments and process. Both written and verbal feedback were provided to the researcher. A written form asked the participants for their feedback in each area of the research: introduction to the study, the case study, instructions for completing Instrument A and B, Instrument A and B, the research questionnaire, and the personal profile.

Based on the feedback provided to the researcher following the pilot study, minor changes were made in the instruments and the instructions to subjects.

Setting.

The study site for this research was a 530-bed acute-care teaching hospital in Western Michigan. The Clinical Practice Model (Wesorick, 1988) was initially developed and implemented at this institution. Nursing personnel taking part in the study have used this model in their practice. The documentation/communication forms used in the case study were those that they use daily in their practice. Hence, the forms and the independent and interdependent standards of care were familiar to them.

Subjects.

Registered nurses from the Medical Intensive Care Unit, the Medical Intermediate Unit, and a Medical-Surgical unit were potential candidates

for the study. A roster of all of the registered nurses from each of these units was obtained. The roster included registered nurses from the day, evening, and night shifts, and those who worked 8-hour shifts, 12-hour shifts, full-time, part-time, and weekends only.

A systematic sampling of every third registered nurse from a list of all registered nurses from these units was obtained. Fifty nurses were selected by systematic sampling initially. Letters were sent to the fifty nurses asking them to participate in the research (Appendix F). The letters were put in the staff's mailboxes on their unit. A response form was attached to their letter (Appendix G). They were instructed in writing to respond within two weeks by indicating whether they would or would not participate in the research (by checking the appropriate box), and to put a check mark by the session that they would be attending. The response forms were to be placed in a manilla envelope in each of the unit conference rooms.

After two weeks there were 17 positive responses. Systematic sampling continued and ten additional letters were put in the mailboxes of nursing personnel. The following day, reminders were put in the mailboxes of all nursing personnel initially selected but who had not responded (Appendix H). Twelve additional nurses were systematically selected to participate, and letters were put into their mailboxes. Two days prior to the first research session there were 33 positive responses. Approval was obtained from the Vice-President of Nursing Services to open up participation in the study to all registered nurses from these three units. Letters were sent to the 35 additional nurses, and notices were posted on the bulletin boards indicating that the study was open to all registered nurses from these three nursing units (Appendix I). Thirty-

five registered nurses participated in the study, with a usable sample size of 34.

Data collection.

Data were collected over a three day period to allow more nurses to take part in the study. A sample size of at least 30 was hoped to be obtained. Data were collected in early December, 1988 so that the staffing levels were stable after the Thanksgiving holiday. New graduates would have had 3-6 months to become familiar with the clinical practice tools, including the standards of care.

The days of the week and times chosen for the data collection sessions were based on input from the Assistant Department Managers. The data collection sessions were held on a Thursday, Friday, and Saturday. There were four sessions each day, or a total of twelve over the three days. The sessions were held at 7:30-8:30 AM, 2:00-3:00 PM, 3:30-4:30 PM and 7:30-8:30 PM. These times allowed for the participants to attend a session before or after their shift change. The weekend sessions were necessary for the 'weekend choice' staff. The dates, times, and location of the data collection sessions were posted in the conference rooms on the three units, and were also listed in each participant's letter.

Prior to each research session, nursing staff from the three units were reminded of the sessions either by a phone call to the units or by the researcher going to the units. During the first day of the research sessions, some nurses who had signed up for a session had not attended. On the second day, nurses who had signed up to take part on day 2 or day 3 were called and reminded of the sessions. Those who were working were sought out and reminded.

Procedure.

The conference rooms used for the study had tables for writing. The research materials were handed to the participants as they arrived. Half of the participants received Instrument A followed by Instrument B, and the other half received Instrument B followed by Instrument A. Directions for the study were in writing (Appendix J). The researcher also gave a brief overview of the sequence of the study. There was a brief sheet of instructions for completing each Patient Classification instrument also (Appendices K & L).

It was stressed to the participants both verbally and in writing that their perceptions toward the two Patient Classification instruments were being studied, and not specifically how the patient was classified. There were no right or wrong answers in classifying the patient. And, because actual workload numbers were not being studied, participants were to view the instruments as though they both resulted in the same workload data. The interrater reliability and validity of the instruments in measuring workload data were not being studied.

The nurses were told that the videotaped case study would take approximately 15 minutes. The participants had written information as part of the case study to review at this time also. Completing the two Patient Classification Systems and the research questionnaires took approximately 45 minutes. Participants received payment for participating in this study outside of their scheduled work hours from a private foundation associated with the participating hospital.

The case study was reviewed by the participants. This included a videotape of a night-shift registered nurse giving exchange report on a patient to the day-shift nurse. It then showed the day-shift nurse

meeting the patient after report and planning the day with the patient. A model posing as a patient was used in the videotape, and the two registered nurses were from the study hospital. Documentation records for the case study included the Patient Profile, Nursing Care Plan, Medication Record, Medical Profile, 24-Hour Vital Sign/Intake & Output Record, and the Nurses' Notes from the previous 24-hours. The appropriate independent and interdependent standards of care were also included (Appendix M).

Half of the participants completed Instrument A and then completed the questionnaire regarding Instrument A. They then completed Instrument B, and the questionnaire regarding Instrument B. The other half completed Instrument B and the questionnaire, followed by Instrument A and questionnaire. In this way, guards against certain threats to validity were built in, such as maturation (fatigue by the time they use the second tool), and the history effect (carry-over of ideas/perceptions from the first tool to the second).

The participants completed a questionnaire for each instrument separately so that they did not compare their responses between both instruments. The "Personal Profile" was completed last. Participants were asked on the "Personal Profile" which instrument and questionnaire they completed first, A or B.

The participants were thanked for taking part in the study, and told that the results would be sent to their units. The results would also be shared with the Vice-President of Nursing at the study hospital, the Clinical Nurse Specialist of Professional Nursing Practice, the Directors of the Critical Care and Medical-Surgical areas, the Assistant Department Managers of the participating nursing care units, and the Patient Classification coordinator.

Chapter 4

Results

Introduction.

The purpose of this analysis was to compare two different Patient Classification Systems: Instrument A consisting primarily of delegated nursing services, and Instrument B consisting of independent, interdependent and delegated nursing services. A sample of 34 nurses was obtained. Each nurse filled out two survey forms/questionnaires, one for each of the Patient Classification Systems. The questionnaires for each instrument were identical. Each participant also filled out a Personal Profile which consisted of demographic questions. The statistics were compiled using the SPSS-X statistical analysis computer software at Grand Valley State University (SPSS-X is a trademark of SPSS Inc. of Chicago, Illinois, for its proprietary computer software).

Characteristics of the subjects.

The sample taking part in the study included registered nurses from a Critical Care Unit, an Intermediate Care Unit, and a Medical-Surgical Unit. They were evenly represented from each of these units. The majority of the participants had worked as registered nurses for ten years or less (see Table 1), and at the study hospital for five years or less (see Table 2).

Table 1

Length of Time working as Registered Nurse

Length of Time	Frequency	Percent
0 to 12 months	5	14.7
13 months to 5 years	11	32.3
6 to 10 years	14	41.2
More than 10 years	4	11.8

Nurses who worked full-time, part-time and 'weekends only' were represented in the study. The majority of the nurses worked full-time as shown in Table 3. 'Weekend Choice' staff work two 12-hour shifts each weekend. The participants represented each of the three shifts also, as shown in Table 3.

Table 2

Length of Time as Registered Nurse at Study Hospital

Length of Time	Frequency	Percent
0 to 12 months	13	38.2
13 months to 5 years	14	41.2
6 years or more	7	20.6

Although the evening and night shift registered nurses do not work with the patient classification systems as much as the day-shift nurses, they feel the impact of the system with their staffing levels. Two-thirds

of the nurses taking part in the study worked 12-hour shifts.

Table 3

Employment Status of Participants

Employment status	Frequency	Percent
Shift		
Days (includes 7am-7pm)	15	44.1
Evenings	6	17.6
Nights (include 7pm-7am)	13	38.2
Frequency		
Full-time	19	55.9
Part-time	9	26.5
Weekend Choice	6	17.6
Length of shift		
8-hours	13	38.2
12-hours	21	61.8

As shown in Table 4, the educational backgrounds of the participants were fairly evenly represented from Associate Degrees programs, Diploma programs, and Bachelor of Science in Nursing programs. One participant had a Bachelor's degree in something other then nursing, and one had a Masters degree in Nursing. The majority of those who responded (85%) graduated from a nursing program from 1980 to 1988. Fifty-eight percent graduated from 1985 to 1988. Most of the participants (85%) were not currently students in Bachelor's or Master's degree programs.

Table 4

Educational Background of Participants

Educational background	Frequency	Percent
Associate Degree in Nursing	10	29.41
Diploma in Nursing	10	29.41
Bachelor of Science in Nursing	12	35.30
Bachelors Degree, not in Nursing	1	2.94
Masters of Science in Nursing	1	2.94

All of the respondents supported and valued the Clinical Practice Model in general. Seventy-three percent had not been or were not presently unit representatives for the Clinical Practice Model. These data indicate that, although the majority of the participants did not have the experience of being unit representatives for the practice model, they still supported and valued the model.

Most of the respondents (94%) supported and valued patient classification in general. One nurse who did not support/value patient classification wrote in "the current system at this hospital."

Almost two-thirds of the participants had worked with the Clinical Practice Model for more than a year, and over two-thirds had worked with a patient classification system for this length of time. Hence, the majority of the participants had experience with the Clinical Practice Model and a patient classification system prior to the study.

The demographic data pointed to a younger, experienced staff participating in this study. Many have worked as registered nurses for five to ten years, and at the study hospital for one to five years. The

majority of the participants have worked with patient classification systems and the Clinical Practice Model for more than a year. All shifts were represented, with the majority of participants working 12-hour shifts. Many of the participants graduated since 1980 and were not currently students. All valued the Clinical Practice Model and the majority valued patient classification. The participants were quite evenly divided in their educational backgrounds between Associate Degree programs, Diploma programs, and Bachelor of Science in Nursing programs. They were also quite evenly represented from the three nursing units participating (Appendix N).

Data Analysis

Comparison of instruments.

There were 16 questions on the questionnaire. For each question, the subjects rated an aspect of the patient classification instrument on a scale of one to five. The survey form was designed so that on some questions, the favorable responses were toward one on the scale, and on others the favorable responses were toward five on the scale.

A difference, denoted by Y, was defined for each variable. For those questions where the favorable responses were toward one, the Y values were $Yx=Ax-Bx$, where Yx was the difference on survey question x, Ax was the response for Instrument A on question x, Bx was the response for Instrument B on question x, and x was the question number which ranged from one to thirteen. There were two parts to question nine, and three parts to question ten. For those questions on the survey in which the favorable responses were toward five on the scale, the differences were defined as $Yx=Bx-Ax$. In this way, a positive value for Yx always

indicated that Instrument B was preferred on question x. A negative value for Yx indicated that Instrument A was preferred.

The analysis was done with the differences, or Y values. This removed the person affect; some people always put down high or low scores, while others mark threes on every question. An analysis was done on the complete survey, which included all questions, looking for differences between the two study instruments, and for significant demographic factors. Also, two subscales were defined. One subscale consisted of questions regarding how acceptable the instruments were to the participants. This 'acceptability' subscale consisted of survey questions 4, 5, 9a, 9b, 10a, 10b, 10c, and 11. These survey questions asked (1) what the subjects' attitude was toward each patient classification system instrument--positive to negative, (2) how acceptable the system was to them--acceptable to not acceptable, and (3) how they felt when they completed the instrument--a. pleasant to unpleasant, and b. frustrated to calm. Questions from the 'acceptability' subscale also asked (4) how they felt about the patient classification instrument--a. valuable to worthless, b. bad to good, and c. appropriate for nursing to inappropriate for nursing. And, the nurses rated their overall feeling about each instrument as (5) strongly in favor of it to strongly against it.

The second subscale consisted of survey questions regarding how the subjects perceived the instruments reflected their professional practice. This 'reflect practice' subscale consisted of survey questions 1, 2, 3, 6, 7 and 8. These questions asked (1) how well the patient classification instrument represented actual patient's nursing care needs--well to poorly, (2) how complete the instrument was in identifying a patient's

holistic nursing care needs--complete to incomplete, and (3) how comprehensive the instrument was in identifying patient needs/activities that the nurses believed affected their workload--noncomprehensive to comprehensive. Additional questions on the 'reflect practice' subscale asked (4) how appropriate the terminology was in describing current professional practice, (5) the reflection of actual nursing practice to services rendered, and (6) how well the instrument integrated with other nursing records.

Data analysis was done on the complete survey, the 'acceptability' subscale, and the 'reflect practice' subscale. Questions 12 and 13 did not relate directly to the research questions, but asked for information regarding the clarity and ease of use of the instruments.

The Hotelling's T^2 test for differences between instruments was used to analyze the data. Hotelling's T^2 test is a parametric test for differences in two vectors. It is analogous to the T-test for differences in means. On the complete survey, the vector consisted of the 16 Y values taken together, one from each of the survey questions.

The goal was to determine whether there was a significant difference between Instrument A and Instrument B, as indicated from the survey responses. If there was no difference in the survey response for Instruments A and B on a particular question, the value of Y on that question would be zero. Therefore, with the Hotelling's T^2 test, the vector of Y's was compared to a vector of all zeros. The test compared the 16 questions together. All tests were done on a 95% confidence level, so that a significance of .05 or less was needed to conclude that there was a difference.

The results are shown in Table 5. Hotelling's T^2 test revealed a

difference between Instruments A and B when the complete survey was tested (T^2=8.15, p=.006). There was also a difference when the acceptability subscale and the reflect practice subscale were tested, as shown in Table 5.

Table 5

Hotelling's T^2 Test for Differences between Instruments A and B

Complete Survey		Acceptability Subscale		Reflect Practice Subscale	
T^2	p	T^2	p	T^2	p
8.15	.006	1.67	.020	1.03	.000

In order to identify the questions where significant differences existed, each survey question was individually tested. This was done using the Bonferroni Multiple Comparison Test, which is a paired t-test with an increased significance level.

The results of the paired t-test are shown in Tables 6 and 7. Questions two and eight showed significant differences in favor of Instrument B in the reflect practice subscale as shown in Table 6. Question two asked how complete the instruments were in identifying a patient's holistic nursing care needs. These needs included the physical, emotional, educational and spiritual needs of patients. The practice model-oriented system, which included independent, interdependent, and delegated nursing services was perceived by the nurses as more complete in identifying a patient's holistic nursing care needs than the system based primarily on delegated services. Question eight asked how integrated the systems were with other nursing records, such as the nursing profile,

standards of care, and nurses notes. Instrument B, the practice model-oriented system was viewed as significantly (t=4.64, p=.000) better integrated with other nursing records.

Table 6

Bonferroni Multiple Comparison Test for Differences between Instruments A and B on Acceptability Subscale

Perceptions	t-value	df	p	Instrument preferred
Complete in identifying patient's holistic nursing care needs.	4.27	31	.000	B
Integrates well with other nursing records (nursing profile, standards of care, nurses notes).	4.64	33	.000	B

In the acceptability subscale, the subjects favored Instrument B on question 10a (see Table 7). This question asked how they felt about the Patient Classification instrument. The subjects perceived Instrument B, the practice model-oriented instrument as 'more valuable' than Instrument A.

Table 7

Bonferroni Multiple Comparison Test for Differences between Instruments A and B on Reflect Practice Subscale

Perception	t-value	df	p	Instrument preferred
Feel it is valuable.	3.02	32	.005	B

There was a tendency toward Instrument A, the Patient Classification System based primarily on delegated services, with regard to the 'clarity' and 'ease of use' questions. The difference in how the subjects rated Instruments A and B with regard to the ease of using each instrument approached significance toward Instrument A ($t=-3.14$, $df=33$, $p=.004$).

Demographic factors.

The Personal Profile that each nurse completed contained 15 questions. For each demographic question, the nurse checked the response that was applicable from a list of possible responses. Because of the small number of surveys, some of the categories on demographic factors were collapsed.

Appropriate tests were run to determine the contribution of demographic factors to the different scores on the acceptability and reflect practice subscales. The only factor which appeared to make a difference was the item related to whether or not the subject was a unit representative for the clinical practice model. People who were unit representatives found Instrument B to be significantly more acceptable ($F= 9.6$, $df= 1,28$, $p= .004$), more valuable ($F= 10.79$, $df= 1,28$, $p= .003$), and better ($F= 13.66$, $df= 1,28$, $p= .001$).

Conclusions regarding results/data analysis.

The results of this study indicate a preference for the practice model-oriented Patient Classification System (Instrument B) on three of the survey questions. Instrument B was preferred on two questions related to how the participants perceived the instrument reflected their practice. They indicated that the practice model-oriented instrument was more

complete in identifying a patient's holistic nursing care needs, and that it integrated better with other nursing records. It was also perceived by the participants in the acceptability subscale as 'more valuable.' Instrument A, the Patient Classification System based primarily on delegated services, was favored for its ease of use.

Findings related to research questions.

The hypothesis that a Patient Classification System based on the Clinical Practice Model of Nursing (Wesorick, 1988) would be perceived by registered nurses as more reflective of their professional practice than a system based primarily on delegated services was supported in this study. Hotelling's T^2 test and Bonferroni Multiple Comparison test were conclusive in indicating differences between Instruments A and B. Registered nurses perceived the practice model-oriented Patient Classification System as more complete in identifying patients' holistic nursing care needs, and better integrated with other nursing records than the system based primarily on delegated nursing services. These two questions related to how well the system reflected professional practice.

The hypothesis that a system based on the practice model would be more acceptable to the subjects than a system based primarily on delegated services was not conclusively supported. However, there was evidence that the subjects perceived the practice model-oriented system as more acceptable. The participants stated that the practice model-oriented system, Instrument B, was 'more valuable' than Instrument A.

Other findings of interest.

Two questions were included at the end of the survey form that did

not relate directly to the research questions. These questions asked about the clarity and ease of use of the study instruments. Instrument A was perceived as easier to use than Instrument B at a marginally significant level (t-value= -3.14, df=33, p=.004).

Because Instrument A, the system based primarily on delegated services resembled the Patient Classification System that the study hospital had been using, the researcher expected it to have been easier for the participants to use. It would take a number of months of working with Instrument B to be able to equally measure the 'ease of use' variable.

Also, one must know the independent and interdependent standards of care well in order to feel comfortable with Instrument B. Instrument A consisted of a list of nursing care tasks and delegated services. The vocabulary was clear to the subjects, and the appropriate tasks could quickly be checked if they were needed for a patient. In using Instrument B, there was some overlap between independent, interdependent, and delegated services. And, when areas did overlap (such as 'Self-Bathing--Hygiene Deficit' and 'Assist with Bath'), it was not as clear to the subjects as to which area to classify. Instrument A was very straightforward. Although many services were 'missing' from instrument A, there were no areas of overlap, which made the system clearer and easier to use.

Many of the independent and interdependent standards were divided into two or more 'levels' on Instrument B. These 'levels' were based on the frequency of assessing, intervening, or evaluating the patient with regard to a specific standard. The subjects were not used to working with the standards divided into different levels. This led to more difficulty

in using Instrument B. Instrument A on the other hand, used terminology that the nurses were used to from their current Patient Classification System in breaking down nursing functions (example: simple Intake & Output, complex Intake & Output).

There was an area for written comments at the end of each questionnaire. Participants in the study could write down any comments they desired, or leave the area blank. The comments area brought out valuable 'qualitative' information from the participants. The written comments are found in Appendix N. From the written comments obtained, the participants stated they want a patient classification system that is easy to use, and is more thorough than the current system used at the study hospital. They also stated that they want a system that reflects the standards of care and the practice model that they work with in their practice.

One participant commented that staff would need to know the standards well in order to make classifying with Instrument B easier. With the strong linkage between Instrument B and the standards of care, one nurse wrote that "this tool would encourage increased use of nursing diagnosis in the daily care of the patient."

Another stated, "I feel this system promotes use of the interdependent and independent standards and more accurately indicates our actual care workload as we follow these standards and provide care according to them."

Five of the participants commented on the current Patient Classification System used at the hospital participating in the study. The comments are found in Appendix N from participant number 05, 07, 24, 29, and 30.

Chapter 5

Discussion and Application to Practice

Discussion.

Staffing levels are a crucial aspect of nursing practice. Staffing levels can make or break a nurse and her career in nursing, a budget, or a product (quality health care). Hence, fair and cost-effective staffing levels are of primary importance to all involved in the delivery of health care services.

Patient classification systems assist in determining staffing levels by providing quantitative information about workload. Considerable time is spent each day to classify patients accurately. Studies are done routinely to measure interrater reliability, making sure that classifying is done correctly. But what about the instrument itself? It is important that the workload measurement instrument represent the whole of nursing practice so that there is a meaningful relationship between actual workload and the workload being measured on a classification instrument.

This study revealed that the practice-model oriented Patient Classification System was perceived as representing patients' holistic nursing care needs better than the system based primarily on delegated services. The practice model-oriented system identified physical, emotional, educational and spiritual needs of patients. Participants commented that more attention was needed on classification instruments with regard to patients' emotional needs. They felt that meeting the emotional needs of patients was a large part of their practice, and not adequately represented on classification instruments. Many of the

independent nursing services are related to emotional, educational, and spiritual patient needs. The interdependent nursing services consist of nursing measures related to these holistic patient needs also. Patient classification systems based primarily on delegated services often include only nursing measures related to the physical needs of patients. Because nursing care consists of so much more than meeting the physical needs of patients, a classification system that identifies the holistic needs of patients represents nursing care more completely.

Implications for nursing practice.

The results of this study are important to nursing personnel, administrators, and educators. Nursing personnel who use independent and interdependent standards of care in their practice stated that these two important and time-consuming aspects of their care should be represented on a workload measurement instrument, and that the entire scope of nursing practice should be a part of patient classification systems.

If the entire scope of nursing practice were represented on a workload measurement system, nursing personnel would have the means to make fairer patient assignments. The number and complexity of the patients' holistic needs would be taken into account for planning assignments. Assignments would not be based solely on whether the patients required a 'complete' or 'partial' bath.

The staffing levels on each unit would be based on the holistic nursing care needs of the patients also, and not merely on physical needs. Patients who had emotional, educational, or spiritual needs could have those needs met by nursing personnel if staffing levels were appropriate and reflected those needs.

Administrators would have a more complete basis for justifying staffing levels, budgeting Full Time Equivalents, and delineating variable patient charges for nursing services rendered. Patient charges could be based on data that more realistically reflected the professional nursing services rendered to the client. Information from a Patient Classification System based on the practice model could also be linked to Diagnostic Related Groups.

A Patient Classification System that consisted of independent, interdependent, and delegated nursing services would allow administrators to retrieve a wide variety of information about nursing services required by patients. A computerized system would allow administrators to retrieve a number of different reports. One could analyze which nursing orders occurred most frequently on each nursing unit. Perhaps when hiring personnel, candidates could be evaluated on whether they had expertise in the areas of nursing service that occurred most frequently on that unit. Reports could be generated regarding the independent, interdependent, and delegated services required by patients. This could provide the empirical data necessary to justify decisions (i.e. Is a Psychiatric Nurse Specialist needed to assist staff with the number of patients exhibiting emotional needs? Is there a need for special educational programs or additional patient educators? Is there a need for a Pastoral Care referral system?).

Nursing educators could analyze which nursing orders are most frequently required by patients. They could then focus on these standards of care/orders in their staff development programs.

Although the participants in this study felt that independent, interdependent, and delegated services should be a part of a workload

measurement instrument, they wanted an instrument that was easy to complete. Their time was too limited to be doing paperwork away from the patients. Hence, a workload measurement system that includes more of what professional nurses do has to be easy to complete in order to be acceptable to them.

The Patient Classification System based on the Clinical Practice Model (Wesorick, 1988) integrated better with other nursing records at the study hospital. It integrated with the Nursing Profile, the Nursing Care Plan and Standards of Care, the Medical Profile, and the Nurses' Notes. Integrating a patient classification system in a workable way with the other tools/documentation systems used by nursing may make the system more meaningful to nursing personnel, streamline the mechanics of classifying patients, and perhaps capture more accurate data. Alward (1983) stated that improvement in nursing care plans and chart documentation was noted in hospitals where classification data was obtained from these documents. When a patient classification system is an integral part of the larger documentation system, rather than a 'stand alone' form for staff to complete, it may be more workable and acceptable to them.

The perceptions that the subjects had toward each Patient Classification Instrument are important to nursing staff and administrators. Instrument B was viewed as 'more valuable' than Instrument A. It was also favored on questions related to how well the instrument reflected their practice. It is important for administrators to study and progress in those areas that nursing staff feel are valuable to their practice.

Giovannetti (1978) felt that "as the number of institutions which use patient classification systems increase, efforts may be directed toward

standardizing them. Standardization of patient classification systems would enable regulatory agencies to evaluate the effectiveness of the management of nursing resources more objectively and to make more valid comparisons between hospitals possible." A Patient Classification System based on the practice model would be capable of being used universally in hospitals by nursing personnel. A wealth of information could be obtained regarding actual or potential patient problems assessed, monitored, treated, and/or prevented. This information could be shared both within hospitals and between hospitals.

The results of this research indicate a need for further study and development in the area of workload measurement systems so that they more completely reflect the holistic needs of patients and the broader scope of nursing practice.

Limitations of the study.

One limitation to the study was the number of participants. A sample size greater than 34 may have yielded additional differences between the two study instruments.

A second limitation was the short length of time that the participants were given to become familiar with the patient classification instruments. They worked with the systems for one hour during data collection. If the participants had been given a week or longer to use the instruments on a number of different patients, they would have become more familiar with them. The ratings for each instrument may have been different, especially with regard to 'clarity' and 'ease of use' of the instruments. The instrument based primarily on delegated services was similar to what the participants actually used in their practice. Hence,

the content was much more familiar to them, which made it clearer and easier to use.

One medical patient was used in the case study. Varied patients would have led to a variety of independent, interdependent, and delegated nursing services required. This may have strengthened the participants' views toward the practice model-oriented classification system.

The reliability of the research questionnaire was not established. Establishing the reliability of the questionnaire would be recommended prior to using it in future research.

On the Personal Profile, the subjects were given only two response choices with regard to demographic questions 12 and 13. These questions asked how they felt about patient classification systems and the Clinical Practice Model in general. The subjects could only respond that they (1) did or (2) did not support and value patient classification systems and the Clinical Practice Model in general. If a greater range of responses had been available, perhaps the results to these questions would have been different.

A final limitation to this study which has been identified is that Instrument B, the Patient Classification System based on the Clinical Practice Model (Wesorick, 1988) is only appropriate in hospitals that use this model in their practice. The well-developed standards of care for the independent and interdependent nursing services are the basis of the classification system. Therefore, this study could be replicated only in institutions that use this practice model.

Suggestions for further research.

The results of this study indicate a need for further research and development of the Patient Classification System based of the Clinical Practice Model of Nursing (Wesorick, 1988).

The instrument could be revised so that it was easier to use. This could be done by assigning a bar-coded number to each independent and interdependent nursing order. Those orders and their associated bar-coded numbers would be found on the Nursing Care Plan. The bar-coded numbers for each nursing order would be entered into a computer via a hand-held wand, and the nursing workload for each patient computed. Nursing personnel would not need a lengthy form to complete consisting of every nursing order.

Future research on the practice model-oriented Patient Classification System should include using the system with a number of different patients, for a longer period of time. A larger number of subjects using and evaluating the instrument would also be recommended to allow for data analysis on the two subscales.

The scope of further study could be broadened to include quantifying independent and interdependent standards of care, and studying the reliability and validity of both patient classification systems.

Future studies with the practice model-oriented Patient Classification System could be conducted at different pilot hospitals using the Clinical Practice Model of Nursing (Wesorick, 1988). The development of a standard or universal workload measurement system may benefit the profession of nursing.

Conclusion.

Patient classification systems are used daily by nursing personnel to delineate the nursing care needs of patients so that appropriate staffing levels can be determined. Historically, patient classification systems have consisted of a list of physician-ordered nursing care tasks, or delegated services. With the development of the Clinical Practice Model of Nursing (Wesorick, 1988), two other areas of practice have been delineated: independent and interdependent nursing services. Although the literature documents the development of patient classification systems that include nursing diagnoses, there is currently no system that consists of interdependent services in addition to independent and delegated services. This study utilized two Patient Classification Systems; one based primarily on delegated services, and the other based on independent, interdependent, and delegated Services. The 34 registered nurses used each of the instruments and rated their perceptions of each one using a 16-item questionnaire. An acceptability subscale and a reflect practice subscale were defined from the survey questions. The subjects viewed the practice model oriented system as reflecting patients' holistic nursing care needs better. It was also viewed as better integrated with other forms/documentation systems. The hypothesis that the practice model-oriented system would be perceived as reflecting their practice better was supported. The instrument based primarily on delegated services was easier to use. This study was limited to a case study of one patient, and a limited time of working with both instruments. It may prove beneficial to repeat this study with a larger sample size, using both instruments for a longer period of time and with a number of different patients. Future research could be done to 'quantify' the time involved with each

independent and interdependent standard of care in an effort to quantify nursing workload more thoroughly.

APPENDICES

Appendix A

PATIENT CLASSIFICATION SYSTEM--INSTRUMENT A

Assist with Bath		Obtain Specimen/Culture - Simple (< Q2 Hrs.)	
Complete Bath		Obtain Specimen/Culture - Complex (Q2 Hrs. or more)	
Diaphoretic/Persistent Vomiting		Hemovac	
Assist with Bedpan/Urinal		Drain(s)	
Assist to Bathroom/Bedside Commode		Foley/Straight Cath/Bladder Training	
Incontinent/New Ostomy Care		Intermittent/Continuous Bladder Irrigation	
Up AD LIB		K-Pad, Heat Lamp, Ice Packs	
Dangle, ROM Exercises		NG Tube; Irrigate, Assess Output	
Up with 1 Nurse Assist (ambulate, chair)		Iced Saline Irrigation	
Up with 2 + Nurses Assist (ambulate, chair)		Triflow, Incentive Spirometer, C & DB	
Bedrest, Turns & Positions Independently		O_2 Therapy - PRN	
Bedrest, Turn & Position ≤ 1 Nurse		O_2 Therapy - Continuous	
Bedrest, Turn & Position ≤ 2 + Nurses		Suction (N/P, Trach) Q4-8 Hrs.	
Set up Tray; prepare for eating		Suction (N/P, Trach) Q2-3 Hrs.	
Assist with Meal/Supervise		Suction (N/P, Trach) Q1 Hr. or more	
Tube Feeding		Trach Care, ETT Care	
Complete Oral Feed		Respirator - Continuous	
Simple I & O		Respirator - Weaning from	
Complex I & O		Chest Tube Care - Simple	
Calorie Count		Chest Tube Care - Complex (more than 1)	
Weight: Standing, Chair		Cardiac Outputs	
Weight: Bedscale		Peritoneal Dialysis	
Vital Signs Q4-8 Hrs.		Wound & Skin Care - Simple	
Vital Signs Q2-3 Hrs.		Wound & Skin Care - Complex (draining wounds, packing, irrigations)	
Vital Signs Q1 Hr.			
Vital Signs Q15"-30" for >2 Hrs.		Universal Precautions	
Neuro-Vascular Checks Q4 Hrs.		Strict Isolation	
Neuro-Vascular Checks Q2 Hrs. or more often		Prep for Test/Procedure	

Respiratory Assessment Q4 Hrs.	
Respiratory Assessment Q2 Hrs. or more often	
Abdominal Assessment Q4 Hrs.	
Abdominal Assessment Q2 Hrs. or more often	
Non-Invasive Monitoring; Q15" Observation for 4 Hrs. or more (telemetry, IV Chemo)	
Invasive Monitoring; Swan-Ganz, ICP screw, Cardiac Outputs	
Medication Administration - Oral, IM, SubQ Drops, Sprays, Suppositories; Administer Routine & PRN Meds 1-6 times/24 HRS.	
Administer Routine & PRN Meds ≥ 7 times/24 HRS.	
Medication Administration — IV Meds Monitor IV Fluid Admin, Hep Lock, Site Care	
IV c̄ IVPB Meds or IVP Meds Q6 Hrs. or less often Monitor PCA pump	
IV c̄ IVPB Meds or IVP Meds more often than Q6 Hrs.	
Titrated Drips (Lido, Dopamine, etc.)	
Administer Blood or Blood Products	
Multiple IV's 2-3 IV Lines	
4-5 IV Lines	
6 or More IV Lines	

Assist with Procedure	
Confusion/Disorientation	
Unpredictable - Monitor Q15" for 4 Hrs. or more	
Comatose	
Sensory Deficit(s)	
Impaired Verbal Communication	
Special Emotional Needs	
Special Teaching Needs	
Post-Op; 1st 24-Hours	
Admission/Transfer In	
Discharge/Transfer Out	

Appendix B

PATIENT CLASSIFICATION SYSTEM--INSTRUMENT B

ASSESSMENT: Initiate Nursing Profile & Care Plan		
PLANNING: Update Nursing Profile & Care Plan		
IMPLEMENTATION OF INDEPENDENT STANDARDS: ASSESS, INTERVENE, EVALUATE PATIENT WITH:		
Self-Bathing - Hygiene Deficit		
Self-Feeding - Swallowing Deficit		
Self-Toileting - Toilet Hygiene Deficit		
Self-Dressing - Grooming Deficit		
Impaired Physical Mobility	I (< Q2 HR.)	
	II (Q2 HRS. or more)	
Respiratory Insufficiency	I (< Q2 HR.)	
	II (Q2 HRS. or more)	
Activity Intolerance	I (< Q2 HR.)	
	II (Q2 HRS. or more)	
Alteration in Cardiac Output/	I (< Q2 HR.)	
Alt. in Tissue Perfusion	II (Q2 HRS. or more)	
Alteration in Nutrition/	I (< Q2 HR.)	
Less than Body Requirements More then Body Requirements	II (Q2 HRS. or more)	
Actual Altered Skin Integrity	I (< Q2 HR.)	
	II (Q2 HRS. or more)	
Alteration in Urinary Elimination	I (< Q2 HR.)	
	II (Q2 HRS. or more)	
Alteration in Bowel Elimination	I (< Q2 HR.)	
Diarrhea/Constipation	II (Q2 HRS. or more)	
Alteration in Comfort	I (< Q2 HR.)	
Acute Pain	II (Q2 HRS. or more)	
Alteration in Thought Processes	I (< Q2 HR.)	
	II (Q1-2 HRS.)	
	III (Q15"-30" for ≥ 4 HRS.)	
Sensory-Perceptual Disturbance	I (< Q2 HR.)	
	II (Q2 HRS. or more)	

DELEGATED SERVICES	
Assist with Bath	
Complete Bath	
Diaphoretic/Persistent Vomiting	
Assist with Bedpan/Urinal	
Assist to Bathroom/Bedside Commode	
Incontinent/New Ostomy Care	
Up AD LIB	
Dangle, ROM Exercises	
Up with 1 Nurse Assist (ambulate, chair)	
Up with 2 + Nurses Assist (ambulate, chair)	
Bedrest, Turns & Positions Independently	
Bedrest, Turn & Position c 1 Nurse	
Bedrest, Turn & Position c 2 + Nurses	
Set up Tray; prepare for eating	
Assist with Meal/Supervise	
Tube Feeding	
Complete Oral Feed	
Simple I & O	
Complex I & O	
Calorie Count	
Weight: Standing, Chair	
Weight: Bedscale	
Vital Signs Q4-8 Hrs.	
Vital Signs Q2-3 Hrs.	
Vital Signs Q1 Hr.	
Vital Signs Q15"-30" for > 2 Hrs.	
Neuro-Vascular Checks Q4 Hrs.	
Neuro-Vascular Checks Q2 Hrs. or more	
Respiratory Assessment Q4 Hrs.	
Respiratory Assessment Q2 Hrs. or more	
Abdominal Assessment Q4 Hrs.	
Abdominal Assessment Q2 Hrs. or more	

Noncompliance/Nonadherence	
Potential for Injury	
Actual Infection I (< Q2 HR.)	
II (Q2 HRS. or more)	
Ineffective Coping (Pt/S.O.)	
Anxiety - Fear	
Self-Concept Disturbance	
Impaired Verbal Communication	
Sleep Pattern Disturbance	
Sexual Dysfunction	
Spiritual Distress	
IMPLEMENTATION OF INTERDEPENDENT STANDARDS: - ASSESS, MONITOR, DETECT, PREVENT — Care of the Patient with:	
Hysterectomy I (< Q2 HR.)	
II (Q2 HRS. or more)	
Angina I (< Q2 HR.)	
II (Q2 HRS. or more)	
Bowel Obstruction I (< Q2 HR.)	
II (Q2 HRS. or more)	
Congestive Heart Failure I (< Q2 HR.)	
II (Q2 HRS. or more)	
Diabetes Mellitus I (< Q2 HR.)	
II (Q2 HRS. or more)	
Pneumonia I (< Q2 HR.)	
II (Q2 HRS. or more)	
Central Line I (< Q2 HR.)	
II (Q2 HRS. or more)	
Inflammatory Bowel Disease I (< Q2 HR.)	
II (Q2 HRS. or more)	

Non-Invasive Monitoring; Q15" Observation for 4 Hrs. or more (telemetry, IV Chemo)	
Invasive Monitoring; Swan-Ganz, ICP screw, CO's	
Medication Administration - Oral, IM, SubQ Drops, Sprays, Suppositories; Administer Routine & PRN Meds 1-6 times/24 HRS.	
Administer Routine & PRN Meds ≥ 7 times/24 HRS.	
Medication Administration — IV Meds Monitor IV Fluid Admin, Hep Lock, Site Care	
IV c̄ IVPB Meds or IVP Meds Q6 Hrs. or less often Monitor PCA pump	
IV c̄ IVPB Meds or IVP Meds more often than Q6 Hrs.	
Titrated Drips (Lido, Dopamine, etc.)	
Administer Blood or Blood Products	
Multiple IV's 2-3 IV Lines	
4-5 IV Lines	
6 or More IV Lines	
Obtain Specimen/Culture - Simple (< Q2 Hrs.)	
Obtain Specimen/Culture - Complex (Q2 Hrs. or more)	
Hemovac(s)	
Drain(s)	
Foley/Straight Cath/Bladder Training	
Intermittent/Continuous Bladder Irrigation	
K-Pad, Heat Lamp, Ice Packs	
NG Tube; Irrigate, Assess Output	
Iced Saline Irrigation	
Triflow, Incentive Spirometer, C & DB	
O_2 Therapy - PRN	
O_2 Therapy - Continuous	
Suction (N/P, Trach) Q4-8 Hrs.	
Suction (N/P, Trach) Q2-3 Hrs.	
Suction (N/P, Trach) Q1 Hr. or more	
Trach Care, ETT Care	
Chest Tube Care - Simple	
Chest Tube Care - Complex (more than 1)	

DELEGATED SERVICES	
Cardiac Outputs	
Peritoneal Dialysis	
Wound & Skin Care - Simple	
Wound & Skin Care - Complex (packing, irrigations)	
Universal Precautions	
Strict Isolation	
Prep for Test/Procedure	
Assist with Procedure	
Post-Op: 1st 24-Hours	
Admission/Transfer In	
Discharge/Transfer Out	

Appendix C

QUESTIONNAIRE REGARDING PATIENT CLASSIFICATION SYSTEM INSTRUMENT

Directions: Circle the number (1-5) on the scale that corresponds with your views toward different aspects of the Patient Classification System instrument. We are interested in your views regarding INSTRUMENT DESIGN and USAGE, NOT in actual workload numbers. ASSUME THAT BOTH INSTRUMENTS CALCULATE THE SAME STAFFING NEEDS.

Example: Length of time to complete instrument

Long 1 2 3 (4) 5 Short

Study Instrument: _____

1. HOW DOES THE PATIENT CLASSIFICATION INSTRUMENT REPRESENT ACTUAL PATIENT'S NURSING CARE NEEDS?

Well 1 2 3 4 5 Poorly

2. COMPLETENESS OF INSTRUMENT IN IDENTIFYING A PATIENT'S HOLISTIC NURSING CARE NEEDS: PHYSICAL, EMOTIONAL, EDUCATIONAL, SPIRITUAL

Complete/Comprehensive 1 2 3 4 5 Incomplete/Noncomprehensive

3. COMPREHENSIVENESS IN IDENTIFYING PATIENT NEEDS/ACTIVITIES THAT YOU BELIEVE AFFECTS YOUR WORKLOAD

Incomplete/Noncomprehensive 1 2 3 4 5 Complete/Comprehensive

4. ATTITUDE TOWARD PATIENT CLASSIFICATION SYSTEM INSTRUMENT

Positive 1 2 3 4 5 Negative

5. ACCEPTABILITY TO NURSING PERSONNEL

Acceptable 1 2 3 4 5 Not acceptable

6. APPROPRIATENESS OF TERMINOLOGY USED TO DESCRIBE CURRENT PROFESSIONAL PRACTICE

Appropriate terminology 1 2 3 4 5 Inappropriate terminology

7. REFLECTION OF ACTUAL NURSING PRACTICE TO SERVICES RENDERED

Weak reflection 1 2 3 4 5 Strong reflection

8. INTEGRATION OF INSTRUMENT WITH OTHER NURSING RECORDS (NURSING PROFILE, STANDARDS, NURSES NOTES)

Poorly integrated/linked	1	2	3	4	5	Strong integration/linkage

9. HOW DO YOU FEEL WHEN YOU COMPLETE THIS PATIENT CLASSIFICATION INSTRUMENT?

Pleasant	1	2	3	4	5	Unpleasant
Frustrated	1	2	3	4	5	Calm

10. HOW DO YOU FEEL ABOUT THIS PATIENT CLASSIFICATION INSTRUMENT?

It is:	Valuable	1	2	3	4	5	Worthless
	Bad	1	2	3	4	5	Good
	Appropriate for Nursing	1	2	3	4	5	Inappropriate for Nursing

11. HOW WOULD YOU RATE YOUR OVERALL FEELING ABOUT THIS PATIENT CLASSIFICATION INSTRUMENT?

Strongly in favor of it	1	2	3	4	5	Strongly against it

12. CLARITY OF INSTRUMENT

Unclear/difficult to understand	1	2	3	4	5	Clear/easy to understand

13. EASE OF USE

Easy to use	1	2	3	4	5	Difficult to use

COMMENTS: _____

_____

Appendix D

PERSONAL PROFILE

Directions: Please check (✓) the appropriate areas of information about yourself:

1. Which Patient Classification Instrument did you use FIRST in this study?
   a. A _____
   b. B _____

2. How long have you worked as a Registered Nurse?
   a. 0-3 months _____
   b. 4-12 months _____
   c. 13 months-5 years _____
   d. 6-10 years _____
   e. 11-15 years _____
   f. 16-20 years _____
   g. more than 20 years _____

3. How long have your worked at Butterworth Hospital as a Registered Nurse?
   a. 0-3 months _____
   b. 4-12 months _____
   c. 13 months-5 years _____
   d. 6-10 years _____
   e. 11-15 years _____
   f. 16-20 years _____
   g. more than 20 years _____

8. Length of Shift you usually work:
   a. 8-Hour _____
   b. 12-Hour _____

9. What shift do you usually work?
   a. Days (includes 7A-7P) _____
   b. Evenings _____
   c. Nights (includes 7P-7A) _____

10. What is your educational background?
    a. ADN _____ Year: _____
    b. Diploma in Nursing _____ Year: _____
    c. BSN _____ Year: _____
    d. BS (other than nursing) _____ Year: _____
    e. MSN _____ Year: _____
    f. MS (other than nursing) _____ Year: _____
    g. other: _____ Year: _____

11. Are you currently a student?
    a. Yes, BSN Program _____
    b. Yes, MSN Program _____
    c. No _____

4. How long have you used a Patient Classification System?

   a. 0-3 months _____

   b. 4-12 months _____

   c. 13 months or more _____

5. How long have you worked with the Clinical Practice Model?

   a. 0-3 months _____

   b. 4-12 months _____

   c. 13 months or more _____

6. Are you, or have you been a Unit Representative for the Clinical Practice Model?

   a. yes _____

   b. no _____

7. Current employment status:

   a. Full-Time _____

   b. Part-Time _____

   c. 'Weekend Choice' _____

12. How do you feel about Patient Classification Systems in general?

   a. Support them/Value them _____

   b. Do not Support them/Value them _____

13. How do you feel about the Clinical Practice Model in general?

   a. Support/Value it _____

   b. Do not Support/Value it _____

14. Unit Worked

   a. MICU _____

   b. MIM _____

   c. 5-West _____

15. a. On Duty _____

   b. Off Duty _____

- Thank you for providing us with this information. -

Appendix E

INFORMED CONSENT FOR HUMAN RESEARCH PROJECT

I, _____ herewith agree to serve as a subject in the investigation of Sarah J. Follen, under the supervision of Bonnie Wesorick and Donna Larson. The investigation studies the views of nursing personnel toward two Patient Classification Systems. There are no expected risks to this investigation.

I understand that confidentiality will be protected, and that I am free to withdraw from participation in the investigation at any time without recrimination. I am voluntarily participating in this investigation. If I am not willing to participate, this will not influence my job performance.

I have read and fully understand the foregoing information.

_____ / _____

Date Subject's Signature

Appendix F

INITIAL LETTER TO PARTICIPANTS

November 10, 1988

Dear

You have been randomly selected to participate in a nursing research study at this hospital. The participants include Registered Nurses from Medical ICU, MIM, and 5-West.

The research is on two different Patient Classification Systems, and how you view each system. It will take approximately 1-hour to complete the study. You will be paid for participating in this study outside of your regular work hours. You will receive a number to write on your time card at the research session. Your ADM will then need to initial your time card.

The sessions will be held on December 1, 2, and 3 at the following times and locations:

THURSDAY, DEC 1
7:30-8:30 AM 103 Bostwick Place
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

FRIDAY, DEC 2
7:30-8:30 AM 103 Bostwick Place
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

SATURDAY, DEC 3
7:30-8:30 AM Rm. 1529
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

If you are able to take part in this study, please check the 'YES' box on the enclosed form. Please check the time and date of the session that you plan to attend also. Then place the form in the manilla envelope labeled 'Nursing Research Study' in your unit conference room.

If you are not able to participate in this study please check the 'NO' box on the attached form, and place it in the envelope.

Please respond by November 28th, so that other nurses can be recruited if necessary.

Thank you very much.

Sincerely,

Sarah Follen
GVSU Graduate Nursing Student

Appendix G

RESPONSE FORM FOR NURSING RESEARCH STUDY

Name: _____ Unit: _____

☐ YES I will be able to take part in the nursing research study. I plan on attending the session:

Thursday, December 1 at 7:30-8:30 AM
2:00-3:00 PM
3:30-4:30 PM
7:30-8:30 PM

Friday, December 2 at 7:30-8:30 AM
2:00-3:00 PM
3:30-4:30 PM
7:30-8:30 PM

Saturday, December 3 at 7:30-8:30 AM
2:00-3:00 PM
3:30-4:30 PM
7:30-8:30 PM

☐ NO I am not able to take part in the nursing research study.

NOTE: Please put this response form in the manilla envelope labeled 'nursing research study' in your unit conference room by November 23, 1988. Thank you.

Appendix H

REMINDER TO PARTICIPANTS

November 26, 1988

Dear

I just wanted to remind you of the nursing research study being held next Thursday, Friday, and Saturday (December 1, 2, and 3) at the hospital. I would really appreciate it if you would consider participating in it. There are 12 different times that the one-hour sessions are being held. Please let me know if you will or will not be able to attend.

The sessions will be held at the following times and locations:

Thursday, December 1
7:30-8:30 AM 103 Bostwick Place
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

Friday, December 2
7:30-8:30 AM 103 Bostwick Place
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm 1529

Saturday, December 3
7:30-8:30 AM Rm. 1529
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

If you are abale to take part in this study, please check the 'YES' box on the enclosed form. Please check the time and date of the session that you plan to attend also. Then place the form in the manilla envelope labeled 'Nursing Research Study' in your unit conference room.

If you are not able to participate in this study, please check the 'NO' box on the attached form, and place it in the envelope.

Thank you,

Sarah Follen
GVSU Graduate Nursing Student

Appendix I

NOTICE TO ALL POTENTIAL PARTICIPANTS IN STUDY

November 28, 1988

Dear

In order to increase the number of participants taking part in my research study, I am opening up participation to all R.N.'s on MICU, MIM, and 5-West.

The research is on two different Patient Classification Systems, and how you view each system. It will take approximately 1-hour to complete the study. You will be paid for participating in this study outside of your regular work hours. You will receive a number to write on your time card at the research session. Your ADM will then initial your time card.

The sessions are being held this Thursday, Friday, and Saturday before and after shift changes. I would appreciate it if you would consider participating in the study.

The sessions will be held December 1, 2, and 3 at the following times and locations:

Thursday, Dec. 1
7:30-8:30 AM 103 Bostwick Place
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

Friday, Dec. 2
7:30-8:30 AM 103 Bostwick Place
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

Saturday, Dec. 3
7:30-8:30 AM Rm. 1529
2:00-3:00 PM Rm. 1529
3:30-4:30 PM Rm. 1529
7:30-8:30 PM Rm. 1529

Thank you very much.

Sincerely,

Sarah Follen
GVSU Graduate Nursing Student

Appendix J

INTRODUCTION TO NURSING RESEARCH STUDY

Thank you for agreeing to participate in this nursing research study at this Hospital. This study is on two different Patient Classification System instruments; instrument A and instrument B. Both of the Patient Classification Systems were developed by the researcher. Instrument A consists of a number of nursing functions and patient needs. Many of them are Delegated Services based on Physician Orders. Instrument B consists of Independent, Interdependent, and Delegated Nursing Services.

In this study, I am interested in how you feel about each of the Patient Classification Systems. There are no numbers or times associated with either instrument. I am not studying workload information.

The accuracy of classifying with these two new instruments is not important. You will be using the instruments to get a feel for them so that you can rate each system. There are NO right or wrong answers in classifying the patient from the case study. That is not the focus of this study.

The study consists of a case study of one patient for your review. There is a 15-minute videotape of a Registered Nurse from nights giving report on the patient to the RN working days. It also includes the day-shift RN meeting the patient after report to discuss their plan for the day. Written information in this case study includes the Patient Profile and Nursing Care Plan, the Medical Profile, Medication Record, Graphics Record, and Nurses Notes. The Independent and Interdependent Standards of Care that were a part of this patient's chart are also included.

After reviewing the case study, please classify the patient using the first Patient Classification System in your packet. Brief instructions for completing each instrument are attached.

Then complete the 13-item Questionnaire about the Patient Classification instrument. On this questionnaire you will rate different aspects of the Patient Classification System.

The patient from the case study is then classified using the second Patient Classification instrument in your packet, and a Questionnaire about this instrument is completed. Please complete the Personal Profile enclosed also.

Results of this study will be sent to MICU, MIM, and 5-West. Thank you again for participating in this study.

Sincerely,

Sarah Follen
GVSU Graduate Nursing Student

Appendix K

INSTRUCTIONS FOR COMPLETING INSTRUMENT A

1. Instrument A consists of a number of nursing functions and patient needs. Many of these functions are Delegated Services based on Physician Orders.

2. Many of the nursing functions and patient needs on this instrument would be found on the patient Kardex and Medication Record.

3. To classify the patient, check (✓) the boxes that identify the nursing care measures that the patient will need over the next 24-hours. Assume that you are classifying on the day shift.

4. Check only ONE SMALL BOX within every LARGE BOX.

Example:

Simple I & O	✓
Complex I & O	

5. There are NO areas or boxes on the form that MUST be checked. Typically a patient would have only a few boxes checked.

6. Remember, there are no right or wrong answers in classifying this patient. Accuracy in classifying this patient is not the focus of this study, but rather, how you feel about the classification instrument.

Appendix L

INSTRUCTIONS FOR COMPLETING INSTRUMENT B

1. Instrument B consists of Independent Nursing Services, Interdependent Services, and Delegated Services. The patient will be classified in each of these areas. The left-hand column of the form includes Independent and Interdependent Services. The right-hand column of the form includes Delegated Services.

2. Written Standards of Care for the Independent and Interdependent Services define in detail the nursing care measures that will be carried out. These nursing care measures are related to assessment, intervention and evaluation with the Independent Standards/Nursing Diagnoses. Nursing care measures related to assessing, monitoring, detecting, and preventing complications associated with a Medical Diagnosis or treatment are included in the Interdependent Standards of Care.

3. Independent and Interdependent Services are broken down into two or three LEVELS on the Patient Classification Instrument. These LEVELS are based on the FREQUENCY of carrying out nursing care activities related to the Independent and Interdependent Standards. LEVEL I includes nursing care provided LESS OFTEN THAN Q2 hours. In most cases, this will be Q4 HOUR or Q8 HOUR nursing care. LEVEL II includes nursing care provided EVERY 2 HOURS OF MORE OFTEN.

4. The Independent and Interdependent Nursing Services that the patient requires should be identified on the Nursing Care Plan. The written Standards of Care should be included with the Nursing Profile.

5. Delegated Nursing Services include many nursing functions, and are often found in the Kardex and Medication Record.

6. To classify the patient, check (✓) the boxes that identify the nursing care that the patient will need over the next 24-hours.

7. Check only ONE SMALL BOX within every LARGE BOX.

Examples:

Impaired Physical Mobility	I (< Q2 HR.)	
	II (Q2 HRS. or more)	✓

Assist with Bath	✓
Complete Bath	

8. Remember, there are no right or wrong answers in classifying this patient. Accuracy in classifying this patient is not the focus of this

study, but rather, how you feel about the instrument.

9. There are NO areas or boxes on the form that must be checked. Typically a patient would only have a few boxes checked.

Appendix M

SUMMARY OF DEMOGRAPHIC DATA

1. Which Patient Classification Instrument did you use FIRST in this study?
   a. A 16
   b. B 18

2. How long have you worked as a Registered Nurse?
   a. 0-3 months 1
   b. 4-12 months 4
   c. 13 months-5 years 11
   d. 6-10 years 14
   e. 11-15 years 1
   f. 16-20 years 1
   g. more than 20 years 2

3. How long have your worked at Butterworth Hospital as a Registered Nurse?
   a. 0-3 months 2
   b. 4-12 months 11
   c. 13 months-5 years 14
   d. 6-10 years 5
   e. 11-15 years 1
   f. 16-20 years 0
   g. more than 20 years 1

4. How long have you used a Patient Classification System?
   a. 0-3 months 2
   b. 4-12 months 9
   c. 13 months or more 23

5. How long have you worked with the Clinical Practice Model?
   a. 0-3 months 2
   b. 4-12 months 11
   c. 13 months or more 21

6. Are you, or have you been a Unit Representative for the Clinical Practice Model?
   a. yes 9 (significantly in favor of Instrument B)
   b. no 24
   no response 1

7. Current employment status:
   a. Full-Time 19
   b. Part-Time 9
   c. 'Weekend Choice' 6

8. Length of Shift you usually work:
   a. 8-Hour 13
   b. 12-Hour 21

9. What shift do you usually work?
   a. Days (includes 7A-7P) 15
   b. Evenings 6
   c. Nights (includes 7P-7A) 13

10. What is your educational background?

a. ADN	10	Year:	1960--1
b. Diploma in Nursing	10	Year:	1969--1
c. BSN	12	Year:	1970--1
d. BS (other than nursing)	1	Year:	1976--1
e. MSN	1	Year:	1980--1
f. MS (other than nursing)	0	Year:	1981--1
g. other:	0	Year:	1982--2
			1983--2
			1984--1
			1985--2
			1986--5
			1987--3
			1988--5
			no response--8

11. Are you currently a student?
    a. Yes, BSN Program 4
    b. Yes, MSN Program 1
    c. No 28
    no response 1

12. How do you feel about Patient Classification Systems in general?
    a. Support them/Value them 31
    b. Do not Support them/Value them 2
    no response 1

13. How do you feel about the Clinical Practice Model in general?
    a. Support/Value it 33
    b. Do not Support/Value it 0
    no response 1

14. Unit Worked
    a. MICU 12
    b. MIM 11
    c. 5-West 11

15. On Duty 18
    Off Duty 16

Appendix N

COMMENTS FROM PARTICIPANTS

A = Patient Classification System based on Delegated Services

B = Patient Classification System based on Independent, Interdependent, and Delegated Services

Participant Number		Comments
01	B:	This tool I think would encourage increased use of nursing diagnosis in the daily care of the patient. (MIM, BSN)
04	A:	Seems straightforward and easy to use. Can't think of anything significant that was not addressed. (5-West, BSN)
05	B:	I feel this system covers the nursing practice much more thoroughly than the current system (Medicus).
	A:	I feel this is just geared to tasks and is not as Inclusive as instrument B. (MICU, ADN-BSN student)
06	B:	Too long for realistic use
	A:	Much easier but does not cover all areas involved in nursing care. (MICU, BSN student)
07	A:	I think that it does reflect a little more clearly time spent in actual nursing care than our current classification system (Medicus). Big improvement over current system!
	B:	I didn't find this one as easy to use-longer, more reading, and I think I would find myself resenting it on day when I can't even find time to go to the restroom! (MICU, ADN, after working)
08	B:	I feel this system promotes use of the interdependent and independent standards and more accurately indicates our actual care "workload" of this patient as we follow these standards and provide care according to them. *If one isn't using the standards in providing care to the patient, it would be more difficult to use this classification system. (MIM, BSN)
09	B:	OK - but I wonder how many of the nursing diagnoses I would really do.
	A:	Easier to use (MICU, BSN)

11 A: I think this would be faster going through after having worked with patient a bit which is a plus.
B: Some parts difficult to understand what rating form is asking (first left-hand part under independent standards). (MIM, BSN)

12 B: Only problem is length of time it takes to complete. But is good in the way the care plan is included because the assessment and interventions and evaluations are a part of nurses daily practice. (MIM, BSN)

13 A: I feel that patients that are anxious because of pain, lifestyle change, etc. can be much more needy of nursing support than is often indicated on classification systems.
B: I did this system second and feel it responded to my concern in the other classification system. (5-West, Diploma)

14 A: Less difficulty than with system B. (5-West, Diploma)

15 A: Feel fairly neutral.
B: One must have a clear understanding of the professional practice model to understand and use this effectively. (5-West, ADN, BS)

16 A: Classification B is more wholistic, and classification A is task oriented. (5-West, Diploma)

17 A: Covers physical nursing care well but needs more attention to emotional care - i.e. needs to address such nursing problems as #2 and #4 (from case study).
B: Felt confused about how to fill out at first. Overall covers things well, but would take some getting used to. (MICU, Diploma, Do not support the current PCS at study hospital)

18 B: A little too lengthy.
A: I like this better than B because it is shorter but covers same material. (MIM, Diploma)

21 B: Much more comprehensive form
A: Form very task oriented (5-West, BSN)

22 B: Very comprehensive in covering the many things that take up the nurse's time with a patient, also very professionally-oriented.
A: Comprehensive, but only of physical needs; does not delineate beyond 'teaching' and 'emotional needs.' Also does not address the nursing care plan - special nursing goals. (MIM, BSN, not a unit representative)

24 B: Takes more time to do than present patient classification system. (MIM, BSN)

26 A: Simpler, would free up more nursing time to do. (MIM, Diploma)

27 B: I would want more experience with it before I decide on Question 13 (ease of use). (5-West, ADN)

28 A: What I am currently used to - the things on this classification are the things I must make time for in an 8-hour shift.
B: Some of the nursing diagnoses a little vague ex: spiritual distress. This tool more complete than tool A. (5-West, BSN)

29 B: A better assessment of nursing services.
A: Seems much like Medicus; very task-oriented. Why universal precautions? Shouldn't that always be a given if they are truly "universal?" (5-West, BSN)

30 A: I feel this gives a very thorough description of tasks nurses complete. It is very complete, but does not give much credit to the Clinical Practice Model, emotional needs. I do feel it better represents workload than what we are currently using!
B: This tool much better represents holistic nursing with use of the Clinical Practice Model. It also reflects good task measurement. (MICU, Diploma)

31 A: Task oriented classification

34 A: Very 'task-oriented.' Almost no emphasis on emotional or psychosocial aspect of patient.
B: Much more thorough and complete than study instrument A, but longer, more difficult to use. Question compliance due to time factor. (MICU, ADN)

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