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The Extent to which the Nursing Process is Acknowledged by I.W.U's Baccalaureate Nursing Graduates as Compared to Other Nursing Graduates Employed in this Community

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THE EXTENT TO WHICH THE NURSING PROCESS IS ACKNOWLEDGED BY I.W.U.'S BACCALAUREATE NURSING GRADUATES AS COMPARED TO OTHER NURSING GRADUATES EMPLOYED IN THIS COMMUNITY

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I. INTRODUCTION

The importance of the nursing process has been demonstrated in the past decade and therefore a need exists to investigate whether or not nurses feel they are able to utilize that process to its maximum and whether or not barriers exist which prevent such maximum utilization. The utilization of the nursing process in evaluation of nursing care has been demonstrated. The criterion for evaluation of record keeping has been nursing care. Therefore, the nursing process is related to the quality of nursing care and to the quality of record keeping.

At present, in the mid-seventies, many nurses and researchers contend that the quality of nursing care is reflected in record keeping. In the records kept, good records have been recognized as a measure of the scope and quality of nursing care, revealing the nature, amount, and quality of service planned and given.[1] In the past decade, the criterion for the evaluation of this nursing care has been the nursing process.

Because records reflect the quality of care given the patient, and because the nursing process is the criterion for evaluating this care, all nurses should have not only a knowledge of the process, but should also utilize and record the process in order to improve patient care. However, the history of nursing education and the assessment of present hospital situations, when brought together, provide grounds for questioning whether the nursing process is utilized to its fullest and whether

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[1] R.F. Badgley, et al., "How Good are the Records Your Agency Keeps?", Nursing Outlook 10 (January 1962):118

it is amply and adequately recorded.

Nurses who graduated prior to nineteen-sixty learned much of nursing content through the case study method, the "medical model". As a result, some nurses believe their actions are an automatic response to the situation known as nursing by intuition rather than a response based on the rationale provided by the nursing process known as nursing by assessment.[2]

Of course, the more recent graduates have been exposed to the nursing process. Unfortunately, some believe that many nurses, as students, have regarded this process as "busy work" for student learning, and as an exercise with a quasi-scientific framework for encouraging professional practice.[3] The nursing process is not mrerly a guide for homework, but a process to be taken out of the classroom and applied to the challenge of better patient care.

Another important aspect of the problem of why the nursing process may not be utilized or recorded amply is the record system itself. Many present systems do not use the problem-oriented record system (POR) and, therefore, are not appropriate for noting specific steps in the nursing process. Also, the recording of the lengthy care plans that students are required to do is unrealistic in today's busy patient-care units.

The Brokaw Collegiate School of Nursing of Illinois Wesleyan University has placed great emphasis on its students' being able to understand and implement the nursing process, and this method of teaching creates possibilities for an interesting area of research. The study represented in this report is built upon research into the extent to which the nursing process is acknowledged by I.W.U.'s baccalaureate nursing graduates as compared to other nursing graduates employed in this community.

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[2]Sylvia Carlson, "A Practical Approach to the Nursing Process," American Journal of Nursing 1972 (September 1972):1589.

[3]Ibid.

II. THE STUDY PROBLEM

A. Explanation of Terms

The following definitions for this study were used:

1. Patient

To avoid the cumbersome term, client/patient, the term patient encompasses not only the hospitalized individual, but also individuals, families, and significant others, in other settings--home, clinic, institution. These people are not functioning at their highest level due to environmental, physical, psychological, social, and spiritual factors, or a combination of these factors.

2. Nursing process

A systematic approach to nursing, with a rational, scientific basis, combining intellectual, interpersonal, and physical skills for organizing and administering relevant care. A format of the the steps in the nursing process follows:

a. Assessment
   (1.) collecting data
   (2.) identifying problems

b. Nursing Intervention
   (1.) setting patient goals
   (2.) developing plan of care
   (3.) implementing plan of care

c. Evaluation and Reprocessing

Explanations of these terms follow for a more thorough understanding of the process.

3. Collecting data

The continous, systematic, and selective gathering of objective and subjective information about the health status of an individual

and/or family by the nurse. Also, the subsequent notation of such information in the patient's record.

4. Identifying problems

The critical analysis and interpretation of data to identify problems in the health status of an individual and/or family, and to determine which of these problems would respond to a type of action or intervention carried out by the nurse. The recording of the identified problems should indicate a sense of priority as to which should be dealth with first, a priority based on the long-and-short-term impact the problem would have on the individual and/or family.

5. Goal-setting

Identifying, by both the nurse and the patient, and recording of reasonable, attainable behaviors and health status that are expected to occur as a result of the chosen nursing intervention. The nurse should indicate the approximate length of time anticipated to reach the goal by labeling it either long- or short-termed.

6. Developing plan of care

Decision-making by the professional nurse and the patient in the selection of a set of nursing actions that will bring about the desired results. The nurse is responsible for the recording of the chosen plan of action, extending and revising the initial plan for each problem. This planning is based on nursing judgment, patient preferences, and the previously-established patient goals. The nurse then determines the level of skill needed to carry out the plan of action and plans to collect more data for diagnosing and educating the patient.

7. Implementing plan of care

Carrying out the chosen plan of action, and noting the actual nursing action in the records.

8. Evaluating and reprocessing

Recording a change, or lack of change, in the patient's behavior status that may indicate that nursing actions have or have not made an impact. This is a comparison of the patient's responses, after nursing actions, to the criteria developed in the goal-setting stage. Evaluating allows for a determination of the extent to which goals for the patient were met, and the appropriateness of the specific nursing actions. Recycling of evaluated information, by the nurse, through the nursing process, in order to make necessary corrections to insure positive outcomes. A change can occur with the notation of a new problem, a new or more reasonable goal, a new plan of action, or a new or repeated nursing action. It may also be concluded that no change is needed.

9. Problem-Oriented Records (POR)

A patient-centered system of record keeping that emphasizes the problems for which care is rendered. The main divisions of the records are:

Baseline data: Consisting of the patient's complete history, physical examinations, laboratory results, etcetera.

Subjective data: A patient's views of his symptoms and complaints.

Objective data: Involving test results, notations of a patient's appearance, physical and mental condition, and all other pertinent observations.

Assessment: The analysis of a patient's problems, and his abilities to cope with them. The needs or problems are listed on a

card in front of a chart, as well as on the progress notes for a permanent record.

Plans: An extention or revision of the initial plan for each problem. Collection of more data permits aid in management, assistance in diagnosis, and determination of treatment, and an aid in educating the patient.

B. Purpose

My curiousity about whether the extensive emphasis, in I.W.U.'s curriculum on the nursing process, resulted in I.W.U. graduates' retaining, implementing, and recording that nursing process for better quality of care led to this study.

C. Implications for Nursing

Before any research project is undertaken, its value to the profession should be pertinent. The implications of this study for nursing are as follows: (1) to identify the strengths and weaknesses of I.W.U.'s students and graduates in the various steps of the nursing process; (2) to identify the strengths and weaknesses of other nursing graduates in the nursing process; (3) to estimate the degree of success in teaching the nursing process at I.W.U.; (4) to identify relevant factors preventing the optimum utilization and recording of the nursing process; (5) to benefit patient care by the total results achieved and by the individual participating nurses' acknowledging and identifying their own weaknesses; and (6) to generate hypotheses and questions for further research.

Future investigations arising from this study could be: (1) what teaching methods are conducive to the students' perception of the value

and the importance of implementing the nursing process; (2) what is the impact of nursing practice on the patient; (3) what is the relationship between the quality of nursing care and nursing research; (4) what is the effect of recording upon process evaluation; (5) how is nursing care better recorded for a more reliable, valid indicator of its quality; and (6) does recording make a difference in the plan of care and the quality of care rendered?

D. Limitations of the Study

The limitations of this descriptive-survey were those common to most questionnaires: (1) some respondents may have tended to answer questions they assumed were wanted or correct, even if their answer was incorrect for their situation; (2) some respondents were not as self-analytical as others, and some were over-critical; (3) the terms "sometimes, always, and never" were obsolete, and respondents would have to interprete each word in varying degrees; (4) the small number at the District #6 meeting, of graduates of programs other than I.W.U. may be unrepresentative of the nurses in this community, since the questionnaire was distributed during Nurses' Week and many other non-I.W.U. nurses may have been involved in other activities.

E. Freedom from Hypothesis

In selecting a research approach, two main references were utilized, Essentials of Nursing Research, by L. E. Notter, and Fundamentals of Research in Nursing, by D. F. Fox. Both sources agreed that when applying a descriptive-survey approach, the researcher is seeking information which does not exist, and he actually has no basis for predictions. Therefore, this study was hypothesis-free, since it describes the extent to which the nursing process is acknowledged by nurses.

III. REVIEW OF THE LITERATURE

A. Overview of the Relevant Literature

The concept of better-quality nursing care has been aired in nursing journals, classrooms, research projects, conferences, and the minds of nursing personnel. It follows that many measures of evaluating the quality of nursing care have been attempted, ranging from time studies done in the nineteen-fifties, various checklists, narratives, and rating scales to the more advanced types of today's nursing audits.

The original time-and task studies were formulated by system personnel rather than by nursing personnel, so the emphasis was upon analysis, and upon specific tasks as they took place and not as they ought to have taken place.[4] These studies ignored human need and the need for continuity of care. Some studies have increased in sophistication. An example is the PETO system that B.J. Stevens mentioned in her article, "Analysis of Trends in Nursing Care Management." However, she also agreed that studies "cannot perform a quality-control function."[5]

The advantage of a quality-control system over a task-analysis system was well demonstrated by B.J. Stevens' table of comparisons, which warrants replication. The comparison showed that the quality-control system was patient-oriented, and that the conceptual framework was the nursing process.

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[4]B.J. Stevens, "Analysis of Trends in Nursing Care Management," Journal of Nursing Administration 72 (November/December 1972):13.

[5]Ibid.

Quality Control versus Task-Analysis Systems[6]

	QUALITY-CONTROL SYSTEM	TASK-ANALYSIS SYSTEM
Aim of system	Evaluate the quality of care	Fairly distribute the nursing tasks
Basic criterion	What ought to be done	What is being done
Concept of nursing	Nursing is process	Nursing is a series of specific tasks
What the system	Instances of exceptional nursing, both good and bad	Instances when a team produces fewer completed tasks than the norm
Perspective	What happens to the patient	What happens in the care-delivery system

Narratives have also been utilized, even in schools of nursing, to rate the clinical performance of students. Such narratives are very time-consuming. Also, each recorder makes different observations and stresses different performances, which makes comparisons difficult since there is no universal standard for the judgments made.[7]

Most articles published have developed various forms of checklists for standards of nursing care. Examples of a few are discussed to point out their weaknesses. One hospital unit developed a checklist for each patient on different dates. It required a check-mark if various physical needs were met. No provision was made to determine whether the physical care given was related to the individual's assessment or diagnosis.

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[6]B.J. Stevens, "Analysis of Trends in Nursing Care Management," Journal of Nursing Administration 72 (November/December 1972):17.

[7]R.J. Burke and J.G. Goodale, "New Way to Rate Nurse Performance," Hospitals J.A.H.A. 47 (December 16, 1973):62.

Therefore, there was no way of ascertaining whether the accomplishment of the routine physical needs achieved the patient's goals.[8] Giving care, no matter how skillfully, would not seem to insure quality care if that care was not related to goals which the patient had identified.

Another checklist included more than the routine, ritualistic care of personal hygiene, medication, activities. Checks were also entered for nurses' notes completed, for assistance given to the physician, for various criteria for pre- and post-operative care, and for results noted of any other care rendered.[9] Ironically, in most checklists, provision was made to check off pre- and post-operative care, and no provision was made for teaching patients or for psychological care. "Emphasis continues to be on what the nurse does to the patient rather than on the quality of care he received."[10] True, to check items of the care given is easier than to identify criteria in order to determine quality levels for that care.

Another type of study was of scales used for rating nursing care. The rating of nursing performance depended solely on each nurse's interpretation of the standards.[11] What one nurse considered average could have been considered below average in another's perception, making results non-comparable. The problem with any checklist or rating scale was to determine who decided what the list entailed. A need has been shown for a universal standard in any evaluation of care or performance.

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[8] G. Pardee et al., "Patient Care Evaluation is Every Nurse's Job," Journal of Nursing 71 (October 1971):1958-1960.

[9] G.F. Rubin, et al., "Nursing Audit-Nurses Evaluating Nursing," American Journal of Nursing 72 (August 1972):916-921.

[10] M.E. Nicholls, "Quality Control in Patient Care," American Journal of Nursing 74 (March 1974):456.

[11] R.J. Burke and J.G. Goodale, "New Way to Rate Nurse Performance," Hospitals J.A.H.A. 47 (December 16, 1973):62.

At present, the nursing audit, or the chart review, has been gaining more interest. Unfortunately, just as many types of audits are being developed as there were checklists. Although weaknesses exist, the major strengths of most audits are that they are more patient-oriented, more detailed, and are developed from portions of some model of the nursing process.

Most audits started with an instrument for assessment of the patient according to his diagnosis, and then evaluated the patient's outcomes (responses in terms of care rendered. One problem with this is that, in order "to use an outcome as a criterion, one would have also to determine how much of the patient's recovery was due to nursing and how much was due to medicine."[12]

Another observation is that each audit is developed by a different type of specialist, so each audit has a different assessing instrument for collecting data which is used to measure outcomes (patient's responses) of nursing care. This difference can be beneficial; however, the fact remains that the process needed for whatever decisions are made and whatever care should be given can be the same for any type of patient.

Fortunately, the present trend of nursing audits and evaluations of care has been toward utilizing nursing standards as criteria for evaluation instruments. An excellent example is an evaluation of nursing services, on a patient unit, developed by a nursing service department at a university hospital. The outline was basically the nursing process, with many patient-oriented questions under each category. Only the categories are listed.

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[12]B.J. Stevens, "Analysis of Trends in Nursing Management," Journal of Nursing Administration 72 (November/December 1972):13.

I. Nursing Process
   A. Assessment
   B. Planning
   C. Interventions
      1. Interpersonal Skills
      2. Technical Skills
      3. Environmental Control
      4. Collaboration with other Professionals
      5. Referrals
      6. Record Keeping
   D. Evaluation

II. Administration
   A. Objectives for Unit
   B. Team Nursing
   C. Environmental Control

III. In-service Education
   A. Programs Based on Objectives
   B. Orientation Plan for Unit
   C. Utilization of Reference Material and Resource Persons[13]

Now, with the criteria based on the nursing process, the previous weaknesses are abolished. The nursing process becomes the standard of care. The rationale for using the nursing process for the standards of care and the relationship of these standards to the audit for better quality care, is shown after a discussion of the nursing process.

With the increased demand for systematic evaluation of quality nursing care, many nurses and evaluators had focused on either the outcome phase or evaluation phase, without fully comprehending the nursing process in its entirety. "It is imperative to understand all the components of the nursing process, particularly in terms of how they facilitate the development of an effective instrument for evaluation,"[14] as well as promoting better quality care for the evaluation. Evidence showed that only through the use of the nursing process in its entirety could a patient achieve his highest level

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[13] I.G. Rameu, "Setting Nursing Standards and Evaluating Care," Journal of Nursing Administration (May/June 1973):31-34.

[14] J. Kneedler, "Nursing Process is Continuing Cycle," AORN Journal 20 (August 1974):245.

of health through deliberate, systematic, and individualized care.

Even though the American Nurses' Association publishes nursing-practice standards (which may be labeled "the nursing process"), there are still many ideas of what the steps in the nursing process involve. In reality, most incorporate the same continuous components in the process, except that each labels them differently. Some labeling varies only slightly from the predominant headings of assessment, planning, intervention, and evaluation, adding subtiles under each heading in order to provide more explicit explanation of expected behavior. Other systems, such as M.E. Nicholl's "Control Component," completely avoid reference to the nursing process, but are nevertheless the same process. The outline of the control component does show the cyclic nature and the interrelationships of the steps in the process. Her control system emphasizes a change in the nursing plan, the standards, the feedback system, and actions, in relation to the change in a patient's needs.[15]

Outlines of two commonly-labeled elements of the nursing process are identified as follows:

Outline A

I. Observation
II. Inference
III. Validation
IV. Assessment
V. Action
VI. Evaluation

Outline B

I. Assessment
   A. Collect data
   B. Identify problems
II. Planning
   A. Set priorities and goals
   B. Develop plan of care
III. Implement
   A. Using technical, interpersonal and intellectual skills
IV. Evaluation
   A. Focus on outcomes

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[15]M.E. Nicholls, "Quality Control in Patient Care, "American Journal of Nursing 74 (March 1974):459.

Other systems group planning and implementation together for assessment, intervention, and evaluation. Some list the main headings and do not label what is involved inder each heading but emphasize re-assessment and re-evaluation throughout the process. Whatever the steps are labeled and regardless of their elaboration, the rationale of the nursing process for better quality of care and evaluation of the care is the same.[16]

The primary aim of nursing is to provide quality care, which must, first, be based on some criterion to enable measurement of the quality. The nursing process serves as the criterion for measuring better patient care.

Evaluation of the process of care entails appraisal of all major and minor steps taken in the care of the patient, with attention given to the rationale for the sequence of the steps and the degree to which they help the patient reach his specified, attainable therapeutic goals.[17] Since the nursing process is based on and requires the execution of nursing functions, it follows that assessment of the degree to which the functions are executed yields appraisal of the process of care. Therefore, the standards of practice--the nursing process--serve as a basis for judging the quality of care.

Another justification for using the nursing process for evaluation of care is its practicality as a method for appraising patient-centered care.

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[16]V. Carrieri and J. Sitzman, "Components of the Nursing Process," Nursing Clinics of North America 6 (March 1971):115-124; J. Kneedler, "Nursing Process is Continuing Cycle," AORN Journal 20 (August 1974): 245; L. Lewis, "This I Believe About the Nursing Process," Nursing Outlook 16 (May 1968):26-29; B.J. Stevens, "ANA's Standards of Nursing Practice: What They Tell Us About the State of the Art," Journal of Nursing Administration (September/October 1974):16-18; S. Carlson, "A Practical Approach to the Nursing Process," American Journal of Nursing 1972: 1589-1591; and P.H. Mitchell, Concepts Basic to Nursing. (New York: McGraw-Hill, Inc. 1973):pp. 52-66, 105-108, 121-124.

[17]M.C. Phaneug, The Nursing Audit-A Profile for Excellence, (New York: Appleton-Century-Crofts, 1972), p. 6.

The purpose of the nursing process is to help the nursing profession move away from concepts of care which are task- and activity oriented and procedure- and technique-centered. Nurses can no longer rely on a physician's orders or hospital policy manuals for direction. They must exercise judgment and make their own decisions. The nursing process puts tasks within the context of nursing intervention, tasks being only one element of total nursing actions. Certainly a need exists for nurses to gain knowledge of the nursing process and to apply it to all phases of their profession.

In addition to the need to understand and implement the nursing process, nurses need for several reasons to be able to record the steps of the process. The primary purpose of keeping records is to help the patient and his family. Many studies, intensively conducted, have examined what information should be recorded and have noted how records reflect the care given. Results have shown considerable variance between areas of nursing; however, the probelms found and the main reasons for record keeping have proved to be similiar. Most studies have encountered incompleteness in recording and inconsistencies in the use of the records. These difficulties have demonstrated that, prior to the assessment of a health agency's or unit's performance, adequate and pertinent records of its activities must be kept in order to provide evidence of continuity and quality of care.[19]

The usual method for comparing performance or outcomes, as reflected in the nurses' entries in the patients' records was the audit, as stated previously. The criteria became the heart of the audit, and since the patients' records were the basis of the nursing audit, notations of nursing

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[19]R.F. Badgley, "How Good are the Records Your Agency Keeps?", Nursing Outlook 10 (1962):118-119; D.B. Wright, "What's In the Record?", Nursing Outlook 5 (1957):336-338; G. Adams, "How We Changed Our Records," Nursing Outlook 5 (1968):2384-2388; and D.M. Smith, "A Clinical Nursing Tool," American Journal of Nursing 68 (November 1968):2384-2388.

care rendered and effects of the care were essential. Without notations based on the nursing process, there was no nursing input into the health information system, and nursing outcomes could not be validated.[20]

Phaneuf had pointed out that experience with the nursing audit demonstrated that quality nursing care required the use of the problem-oriented approach. Assessment of both process and outcomes was facilitated by the development of a data base, and by identification of problems, recording a plan of action, and progress notes moving toward identified outcomes.[21] If nursing care was given on the basis of problems identified, using the nursing plans for solving those problems, and if the responses were evaluated on the same basis, then the outcome resulted from utilizing all elements of the nursing process.

The consequence of implementing the problem-oriented record system (POR) was shown in studies by nurses thinking more systematically, with more thought, about individualized patient care and relating basic scientific principles to their interventions. Other results of studies have been as follows: (1) closer nurse-physician relationships; (2) increased acceptance of nurses as co-professionals by physicians; (3) stimulation of interdisciplinary-team-approach to patient care; (4) provision of a more defined framework of actions so that nonprofessionals were able to function more effectively; and (5) a more therapeutic, deeper relationship with the patient.[22]

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[20]H.V. Berg, "Nursing Audit and Outcome Criteria," Nursing Clinics of North America 9 (June 1974):333.

[21]Ibid, p. 332.

[22]B.C. Davis, et al., "Implementation of Problem-Oriented Charting in a Large, Regional Hospital," Journal of Nursing Administration (November/December 1974):33.

One comparative study of POR and the traditional methods of charting illustrated the importance of the patient-centered concept of the POR. The findings indicated that nurses using the traditional method did not always record subjective data or the interpretation of data, whether subjective or objective. Certainly, without interpretations of a patient's views and feelings, care cannot be individualized or complete.[23]

Creighton also discussed the importance of charting from a legal standpoint, and stated that charting was an indication of the quality of nursing care given.[24] If a nurse provides skilled care, she must also record what the care was given. If anything is not charted, the legal implication is that it was not done. How could a health facility charge for services that were not rendered according to the charts? There is some truth to the aphorism, "If you cannot write it, you do now know it or did not do it."

If one knows what is expected of him, he does it; if one does not know what is expected of him, he does not do it. This also applies to the nursing profession. Not only could a thorough understanding of the nursing process enable a nurse to know what is expected, but also expectations of a nurse's performance could be influenced by the methodology provided for recording nursing care. the POR fulfills that methodology.

The POR which was constructed from the nursing process was emphasized, since it solved some present problems found in most of the common record keeping systems and provided for an in-depth, individualized plan of care.

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[23]M. Bertucci, M. Huston, and E. Pereoff, "Comparative Study of Problem-Oriented and Traditional Methods of Charting," Nursing Research 23 (July/August 1974):351-354.

[24]A. Creighton, "Law for the Nurse Supervisor," Supervisor Nurse (March 1971):15.

One major problem with record systems has been the use of the kardexes as nursing care plans. Changing the Kardex as the care plan was modified left no permanent record of the nursing decisions determining the patient's care. Thus, material available for research was severely limited. Difficulties remained, inhibiting a nurse's full perception of the patients' progressive care as a basis for future assessment.[25] This handicapped the goal of continuity and comprehension of care.

One study showed that most kardexes revealed information dealing with nursing actions only in relation to the physician's therapautic plan. None of the students included rehabilitation plans, patient-teaching plans, referrals, or psychological support. Evidence showed that kardexes usually did not serve as an ultimate plan of care but, rather, a duplication of medical orders. This was not to imply that care plans have no purpose. Most nurses were of the opinion that "nursing care plans did result in better care, better continuity of care, and saved time in orienting new staff members to patients." The purposes and goals of nursing care plans were listed in one study as leading to the following: (1) individualized care; (2) help in setting priorities; (3) assistance in systematic communication; (4) coordination of care among groups of health workers; (5) assistance in the evaluation of care; (6) contribution to staff development; and (7) increased continuity of care.[26]

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[25] P. Thoma and K. Pittman, "Evaluation of Problem-Oriented Nursing Notes," American Journal of Nursing 72 (May/June 1972):59.

[26] B.J. Stevens, "Why Won't Nurses Write Nursing Care Plans?", Journal of Nursing Administration (November/December 1972):91; N.C. Kelly, "Nursing Care Plans," Nursing Outlook (May 1966):61-64; G.F. Rubin, L.A. Rinaldi, and R.R. Dietz, "Nursing Audit-Nurses Evaluating Nursing," American Journal of Nursing 71 (October 1971):920; B.J. Ryan, "Nursing Care Plans, A Systems Developing Criteria for Planning and Evaluation," Journal of Administration (May/June 1973):50-58; and M. Kramer, "Nursing Care Plans...Power to the Patient," Journal of Nursing Administration (September/October 1972):30.

Obviously, no professional can play "telephone" when an individual's well-being is at stake. However, our present Kardex system cannot be expected to satisfy all the purposes listed previously. the POR's basic format enhanced the total utilization of a plan of care not only based on pathological findings but on all other relevant data. The staff at Western Pennsylvania Hospital implemented the POR system and were of the opinion that the POR system was the "best method for recording patient care."[27]

Record analysis can become consistent and thorough when the nurse organizes her recording around the nursing process. A charting format that allows notations of the nursing process is a record that can become a working instrument for the nurse. The POR system is such an instrument.

B. Conceptual Framework

This study corroborated the concept that the key to giving and evaluating quality care was the nursing process. The theoretical implication that the nursing process provided better quality care and provided criteria for evaluation of that care led to considering relevant the collection of data describing the extent the nursing process was acknowledged by nurses. The definition and format of the nursing process as developed from the review of the literature has been stated in the explanations of terms.

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[27] B.C. Davis, "Implementation of Problem-Oriented Charting in a Large, Regional Community Hospital," Journal of Nursing Administration (November/December 1974):41.

IV. METHODOLOGY

A. The Research Method

The research method used was a descriptive-survey approach, utilizing a closed questionnaire to identify and describe characteristics of I.W.U. senior nursing majors and graduates as compared to other non-I.W.U. nursing graduates in this community in respect to the nursing process. This comparative approach permitted a more complete understanding and a more adequate description of the present situation. The functions of the approach were to summarize and communicate the data obtained. No evaluations were made from this approach; however, a comparative judgment as to "more or less" knowledge of, utilization of, and recording of the nursing process was obtained.

B. The Sample

The sample was stratified according to the year and the type of program in which the nurses graduated. The selected sample was composed of all I.W.U. nursing graduates employed in the community, senior nursing majors at I.W.U. who would graduate within the present month, and a random selection of other nurses employed in this community.

The recruitment of I.W.U. graduates depended on assistance from I.W.U.'s career planning office, personal inquiries, and the cooperation of personnel departments of hospitals, and health agencies. Although many graduates of I.W.U. have moved out of the community or have married and changed their names, eleven who had graduated in the past three years were located. Also, twenty of the twenty-five senior nursing majors at

I.W.U. volunteered to participate. The inclusion of these senior nursing majors provided a larger sample of graduates of I.W.U. in this community, and provided a comparison of students' views and actions with graduates' views and actions.

Provision for participation in the project by non-I.W.U. graduates was made through Mrs. D. Mitchell, with whose assistance a random selection of non-I.W.U. nursing graduates was made possible by the participation of nurses attending the District #6 meeting during Nurses' Week. Twenty-two were non-I.W.U. graduates, six graduated after the year 1960 in a diploma program, and sixteen graduated prior to 1960 in a diploma program. The sample represented by the District #6 nurses and that represented by the graduates of I.W.U. was diversified in respect to types of present employment.

C. Techniques for Data Collection

Efforts were made to develop a competent instrument for collecting substantial data which would involve attitudes toward, knowledge of, and the implementation and recording of the nursing process. A closed questionnaire was distributed in order to obtain demographic data, descriptive data, and information on opinions and attitudes about the nursing process. The purpose of the questionnaire was to determine the extent to which I.W.U. senior nursing majors and graduates apply the nursing process in their profession as compared to the extent to which other non-I.W.U. nursing graduates, employed in this community, apply the same process.

The validity of the contents of the questionnaire was extablished in consultation with and upon approval by the research committee, who may be considered experts on the contents. The questionnaire was not developed as a test-retest method, a split-half method, or an odd-even test to determine reliability. Although there were limitations to the accuracy and stability

of the questionnaire, the questions were related directly to what the study was seeking. This overt measurement entailed five categories: (1) the demographic data for the purpose of stratifying respondents according to their background; (2) the extent of their knowledge about the nursing process; (3) their attitudes about the nursing process and record keeping; (4) the implementation of every phase of the process described on pages 3-5; and (5) the scope of recording during the nursing process.

Anonymity on the part of the participating nurses, was for the purpose of obtaining frank responses. The questionnaire was distributed through the mail, at places of employment, and by personnel departments. Although the investigator was present at the District #6 meeting, the only personal identification was made in describing the purpose of the study and in explaining how results were to be obtained.

A copy of the questionnaire is printed in the Appendix.

V. ANALYSIS OF DATA

A. Interpretation of Findings

A weighted, quantitative content analysis was utilized for measuring responses in the questionnaire. For ease in computation and in making comparisons, percentages were used. These percentages were in no way evaluative; their purpose was restricted to comparison of numerical values for a "more or less" description of the results.

TABLE I printed in the Appendix, describes responses from each question distributed in the survey. Reference to the questionnaire may be made for the questions and available answers. TABLE II is a combining of questions from the survey into specific categories. Questions dealing with attitudes and opinions were discussed separately. Description of the results from TABLE II were analyzed. The individual questions and responses in TABLE I were discussed only if they deviated greatly and could have had an effect on the total outcome of the results in TABLE II. Reference to TABLE I and the questionnaire could then be made.

This study centered on the nursing process as a key quality care; therefore, attitudes concerning the process were sought. Eighty-five percent of the present I.W.U. nursing students perceived the process as a systematic approach utilizing intellectual and physical actions for organizing nursing actions on a rational, scientific basis. Approximately one-half of the I.W.U. graduates and diploma nurses graduating after 1960 held the same opinion as students. As nurses, one and one-half times more I.W.U. graduates and diploma nurses graduating after 1960 perceived the process as

described on the previous page. The diploma nurses graduating prior to 1960 were extremely diversified in their responses; less than half hel the same opinion for any response. With the diversified responses, one could postulate that many nurses do not have a firm grasp of what the process is or should be. This lack of comprehension about the nursing process could result in inadequate utilization and appreciation of the nursing process.

The extent of the knowledge of and understanding of the nursing process by nurses was sought in questions five through seven, and thirty-three in the survey. Senior students and graduates of I.W.U. understood much more about the nursing process than the non-I.W.U. graduates (95% to 66%). Of this total, senior students knew more about the process than the graduates of I.W.U. (97% to 93%). Non-graduates of I.W.U. receiving their diploma after 1960 also knew more about the process than the diploma nurses graduating prior to 1960 (67% to 65%). The facts that (1) students are more exposed to the process in their professional preparation, and that (2) the process has been recognized only in the last decade, may explain these results.

Two questions, seven and thirty-three, deviated most in responses obtained, which may have affected the total results described above. Twice as many I.W.U. graduates and present students understood what is involved in the nursing process as non-I.W.U. diploma nurses graduating prior to 1960. I.W.U. students and graduates recognized all steps listed as important in the process. None of the diploma nurses included repeating the nursing process, and non-I.W.U. nurses graduating after 1960 did not list observation, inference, or planning as part of the process; also, other steps of the nursing process that could have been chosen, such as collecting data, defining problems, intervening, making a nursing diagnosis, and validating were marked less often. The diploma nurses graduating after 1960

did show that their perception of the nursing process consisted of assessment, determination of goals, establishment of care plan, implementation of nursing actions, and evaluation. This response showed a familiarity of the process and of a popular format of the nursing process. However, failure to recognize the other steps suggested that complete comprehension of the total process was lacking.

The other responses that deviated greatly were in reference to continuing or repeating the process. More than three-fourths of the I.W.U. graduates included a new assessment, a new problem, a new goal, a new plan, a new intervention, and the repetition of an original intervention as evidence of continuing or repeating the process. Less than half of the non-I.W.U. graduates included all these responses. Most of the non-I.W.U. graduates excluded the repetition of an original intervention.

Questions ten through twenty, twenty-five, twenty-six, and twenty-nine through thirty-two, and forty-four of the survey dealt with the implementation of the nursing process. I.W.U. students implemented the process slightly more than I.W.U. graduates (90% to 86%), and non-I.W.U. diploma nurses graduating prior to 1960 (86% to 84%). As a whole, I.W.U. graduates implemented the process only slightly more than the non-I.W.U. graduates (88% to 85%). These findings prompted inquiry into whether knowledge and understanding of the process is essential for implementing quality care. The possibility exists that, although the non-I.W.U. graduates did not fully comprehend the nursing process, they were either taught a concept of care which was labeled differently or were able to give care accoding to the nursing process without, however, fully realizing the rationale utilized.

Several of the questions involving the implementation of the nursing process elicited diverse responses that may have contributed to the results

stated previously. Based on questions ten thorough thirteen, seventeen, and thirty-one, I.W.U. nursing graduates, especially students, rendered more patient-centered care than the non-I.W.U. diploma nurses. The importance of this observation was that personalized care with respect to the patient's views and reactions is a mark of better-quality care

I.W.U. senior students and non-I.W.U. diploma nurses graduating prior to 1960 established, almost twice as much as I.W.U. graduates or non-I.W.U. diploma nurses graduating after 1960, certain priorties among long- and short-term goals identified before selecting and prescribing nursing actions. These results suggested that the nurses who graduated in the past ten years and who are presently employed do not always recognize a need to set priorities before implementing action.

The response that drastically affected senior nursing students' and graduates' of I.W.U. total score dealing with the implementation of the process was number thirty-two. I.W.U. graduates did not confer half as much with other health team members when an adjustment to the original plan of care appeared necessary. This response suggested that I.W.U. graduates either act too independently, with the confidence of providing quality care, or do not realize the valuable information, obtainable from other health team members, that could be sought and incorporated into patient care. These results provided grounds for more team conferences to benefit patient care.

The recording of the nursing process was identified in questions twenty-one through twenty-four, twenty-seven, thirty-four through thirty-seven, and forty-one in the survey. I.W.U. senior nursing majors and graduates recorded the process less than non-I.W.U. graduates (71% to 76%). Of these totals, I.W.U. senior nursing majors recorded the process the least, and I.W.U. graduates and non-I.W.U. diploma nurses graduating prior to 1960 recorded in the most.

Comparison of the responses among questions twenty-two through twenty-seven, involving care plans, revealed interesting and perplexing results. I.W.U. senior nursing majors placed great importance on the nurse's responsibility for recording the care plan and for determining the level of skill required to carry out the plan for better quality and continuity of care in less time. However, their responses to formulating and recording the plan of care was less! The non-I.W.U. diploma nurses graduating prior to 1960 also responded in a similiar manner. They perceived, more than non-I.W.U. diploma nurses graduating after 1960, that the care plan resulted in better quality of care, felt that nurses had the responsibility of recording the plan, and most of them formulated a plan of care before implementing any nursing actions. Ironically, the results showed that these diploma nurses graduating prior to 1960 who formulated care plans and felt the nurse had the responsibility of recording it, recorded their formulated plan less than the non-I.W.U. diploma nurses graduating after 1960!

I.W.U. graduates held a much lower opinion of the importance of care plans in the continuity of care. This was one response that affected the combined percentages of I.W.U. senior nursing majors and graduates amount of recording of the nursing process. The graduates of I.W.U. were also of the opinion nurses are responsible for the recording of the plan of care, and yet when comparing the amount of formulating a plan with the amount of recording that plan, the recording was considerably less. A reason why nurses do not record the care plan might have been that the plans were not used; this, however, was not the case. Both graduates and non-I.W.U. graduates stated that they utilized the Kardexes to a great extent. Another possible hinderence to recording care plans could have been the record-keeping system. Busy nurses do not have time to make separate sheets of care plans.

Record systems should provide a more thorough, up-to-date plan of care. This provision should not be separate or an "extra" that nurses may utilize, but rather it should be the core of the records.

Another problem noticed in this study was the lack of recording, by most nurses, of a change or a lack of change, in a patient's condition, that would indicate whether a nursing action made an impact on that condition. Many possible circumstances could exist which would prevent this type of recording. This study did not provide the answer, but hypotheses might be formulated as a result of the data. From the nurses' dissatisfaction with their present record-keeping system, and their lack of recording, barriers may exist in the charting formats and the nurses' charting ability.

Attitudes concerning record-keeping were sought in questions thirty-eight through forty, forty-two, and forty-three. Approximately three-fourths of the I.W.U. graduates and senior nursing students and non-I.W.U. diploma nurses graduating prior to 1960 were dissatisfied with their present record-keeping system. Slightly more than three-fourths of the non-I.W.U. diploma nurses graduating after 1960 were dissatisfied.

All I.W.U. students were aware of the POR. Only one-half of the I.W.U. graduates and non-I.W.U. diploma nurses were aware of it. Eighty-five percent of the nurses aware of the POR were of the opinion that the POR system was better than their present record-keeping system. This description of attitudes indicates a need for most health agencies to either incorporate a form of the POR or develop a more suitable record-keeping system.

B. Conclusions

1. I.W.U. senior nursing majors and graduates understand and know more about the nursing process than non-I.W.U. nursing graduates.
   a. I.W.U. senior nursing majors have slightly more knowledge of the nursing process than past graduates of I.W.U.

b. Non-I.W.U. senior nursing majors have slightly more knowledge of slightly more knowledge of the nursing process than non-I.W.U. diploma nurses graduating prior to 1960.
c. Non-I.W.U. diploma nurses have a familiarity with the labeled steps of the nursing process, but lack a full comprehension of what the steps entail.

2. I.W.U. senior nursing majors and graduates implement the nursing process only slightly more than non-I.W.U. nursing graduates.
   a. I.W.U. senior nursing majors implement the nursing process slightly more than the graduates of I.W.U. and non-I.W.U. graduates.
   b. The extent of knowledge of and the understanding of the nursing process does not influence the implementation of the nursing process to any great extent.
   c. Although senior nursing majors, graduates, and non-graduates of I.W.U. do not vary extremely in implementing the nursing process , senior nursing majors and graduates of I.W.U. render more patient-centered care.

3. I.W.U. senior nursing majors and graduates record the nursing process less than non-I.W.U. nursing graduates.
   a. I.W.U. senior nursing majors record the nursing process the least.
   b. I.W.U. graduates and diploma nurses graduating prior to 1960 record the nursing process most.

4. Most I.W.U. senior nursing majors, graduates, and non-graduates of I.W.U. are dissatisfied with their present record-keeping system.
   a. Most of the nurses who are aware of the problem-oriented record system are of the opinion that it is better than their present record-keeping system.
   b. I.W.U. senior nursing majors, graduates, and non-I.W.U. nursing graduates would benefit greatly from more knowledge about quality content in charting.

C. Implications

As a result of this study, a few suggestions can be made for the nursing program at I.W.U. and for other health agencies. Utilization of the process, with the patient as the focal point of care, is commendable. However, a need exists for nurses to record more of the process for evidence of this quality care, and for the continuing evaluation of the patient's condition. More knowledge of what to record, and the rationale supporting the reasons, may be needed. Trial and error in recording does not benefit patients.

Record-keeping is not an index to what nurses do; rather, it is a guide for assisting the patient in every way possible. Non-I.W.U. graduates need to become more aware of the patient's perceptions and his role in his care. The non-I.W.U. nursing graduates implement skilled care on a rational, scientific basis; the makr of quality nursing care, however, is patient-oriented care.

Many other health agencies should re-evaluate their record-keeping systems. From the indications of what is and what is not being recorded, a serious need exists to determine whether the problem lies within the charting formats, the nurses' charting abilities, or both. Possibly, in the future, seminars on how to utilize the patient's total record for better quality care might be tiven. Also, descriptions of various charting formats might be given so that nurses can begin to analyze what could be best for their individual situations.

In concluding this research project, I would like to express my gratitude to the research committee professors, Lynn Westcot, Eleanor Allen, Alice Reber, and Justus Pearson for their helpful suggestions. I would also like to express my appreciation to Mrs. Debbie Mitchell for assistance in distributing the survey to the nurses at the District #6 meeting. Most importantly, I wish to express my gratefulness to all nurses participating in this survey. My experience in working through the research process has been inspiring, and has been particularly helpful in preparing for future research projects.

1. Are you an Illinois Wesleyan University graduate?
(circle one) yes no

2. From what type of program did you graduate?
(circle one) Associate Degree Baccalaureate Diploma

3. What year did you graduate? _____

4. In what clinical area are you presently employed? _____

5. If you are a graduate of a collegiate program, were you taught what was labled the nursing process in your program?
(circle one) yes no

6. Have you obtained any instruction in the nursing process or read any material dealing with the nursing process since graduation?
(circle one) yes no

7. According to your understanding of the nursing process, which of the steps below constitutes the various steps involved in the process?
(cirlce one or more)

A. Assessment	F. Establish care plan	K. Observation
B. Collect data	G. Implement nursing actions	L. Inference
C. Define problems	H. Evaluate	M. Validation
D. Intervention	I. Repeat process	N. Planning
E. Determine and set goals	J. Nursing Diagnosis	O. All of these

Use space below to add any other steps or comments.

8. Which answer below best describes your perception of the nursing process as a student?
(circle one or more)
A. Busy work for student learning
B. An exercise with a quasi-scientific framework encouraging professional practice
C. A systematic approach utilizing intellectual and physical actions for organizing nursing actions with a rational, scientific basis
D. A decision making process

9. Which answer best describes your perception of the nursing process as a nurse?
(circle one or more)
A. Busy work for student learning
B. An exercise with a quasi-scientific framework encouraging professional practice
C. A systematic approach utilizing intellectual and physical actions for organizing nursing actions with a rational, scientific basis
D. A decision making process

10. When gathering data for assessment, do you ask the patient his view of his symptoms and his complaints?
(circle one) sometimes always never

11. When analyzing a client's/patient's problem, do you incorporate the client's/patient's view of his ability to cope with the problem?
(circle one) sometimes always never

12. Do you identify a client's/patient's reaction to his situation as well as to his symptoms?
(circle one) sometimes always never

13. What are your usual sources of information?
(circle one or more)
A. Observation and communication with the client/patient
B. Review of the medical records
C. Communication with the health team
D. Communication with significant others

14. Is communication an essential aspect in assessment for determining needs of the client/patient as well as a method for meeting those needs in a way that is acceptable to him?
(circle one) sometimes always never

15. How often are adaptations made to break down communication barriers such as age, different cultural backgrounds, degree of illness, et cetera in order to establish meaningful interactions between you and the client/patient?
(circle one) sometimes always never

16. Have you utilized some type of system approach to assessment when collecting data?
(circle one) sometimes always never

17. With whom do you usually confer when setting client/patient goals?
(circle one or more)
A. Members of the health team
B. The client/patient
C. The client's/patient's family

18. Do you identify client/patient goals before implementing any nursing activities?
(circle one) sometimes always never

19. Do you establish certain priorities among the long and short term goals identified before selecting and prescribing nursing activities?
(circle one) sometimes always never

20. When selecting nursing activities to assist in the achievement of goals, do you analyze each possible action and its consequences before arriving at a course of action?
(circle one) sometimes always never

21. From your experience, do nursing care plans result in better quality of client/patient care?
(circle one) sometimes always never

22. From your experience, do care plans result in better continuity of care?
(circle one) sometimes always never

23. From your experience, do care plans result in more effective care in less time?
(circle one) sometimes always never

24. Are nurses responsible for recording the plan of care?
(circle one) sometimes always never

25. Are nurses responsible for determining the level of skill required (professional or nonprofessional) to carry out the plan of action?
(circle one) sometimes always never

26. Do you formulate a plan of care (written or nonwritten) before implementing any nursing actions?
(circle one) sometimes always never

27. How often do you record your plan of care?
(circle one) sometimes always never

28. Which nursing objective is usually <u>least</u> met by your nursing actions?
(circle one)
A. Physical
B. Psychological
C. Spiritual
D. Social
E. Enviromental
F. Meet all of them equally

29. Do you try to control the situation so that the outcomes of an activity will have a positive effect on the client/patient?
(circle one) sometimes always never

30. Do you collaborate with other members of the health team when there is a question about consequences of a plan of action within their area of specialization?
(circle one) sometimes always never

31. Are you alert to signs of withdrawal on the client's/patient's part when the demands of the hospital routine appear too burdensome?
(circle one) sometimes always never

32. Do you confer with other health team members when an adjustment to the original plan of care appears necessary?
(circle one) sometimes always never

33. Based on your personal experience, which answer below is evidence of continuing or repeating the nursing process?
(circle one or more)
A. A new assessment, a new problem, a new goal, and a new plan of care
B. A new intervention
C. An original intervention repeated
D. All of the above

34. To what extent do you believe the client's/patient's total record is used to direct and evaluate his care?
(circle one) sometimes always never

35. Do you find yourself recording observations of a client/patient more frequently than recording specific nursing interventions?
(circle one) sometimes always never

36. Do you find in your present record system that notations of nursing interventions outnumber notations concerning a client's/patient's reaction to the intervention?
(circle one) sometimes always never

37. How often is a change or lack of change in a client's/patient's condition recorded that indicates whether a nursing action has made an impact on that condition?
(circle one) sometimes always never

38. Are you satisfied with your present record keeping system?
(circle one) yes no

39. Are you aware of the problem-oriented record system (POR)?
(circle one) yes no

40. If you have investigated the POR, do you believe that this system is better than your present record system?
(circle one) yes no

41. If your record system incorporates the card indexes, how often do you utilize them?
(circle one) sometimes always never

42. Do you find pertinent data from the nursing care plans and the card indexes duplicated in the progress notes? Answer if this applies to your type of record system.
(circle one) sometimes always never

43. Does your record system allow you to differentiate between general principles of care such as personal hygiene, regulation of oxygen, et cetera and the specific, individual problems?
(circle one) yes no

44. From your experience, is the emphasis on what the nurse does for the client/patient changing to an emphasis on the quality of care the nurse renders to the client/patient?
(circle one) yes no

45. Do you want results of this study sent to you?
(circle one) yes no

TABLE I. PERCENTAGES OF RESPONSES TO QUESTIONS IN THE SURVEY DEALING WITH THE NURSING PROCESS BY ILLINOIS WESLEYAN GRADUATES AND NON-ILLINOIS WESLEYAN UNIVERSITY GRADUATES IN NURSING

Question Number and Responses From Survey		Baccalaureate Nursing Graduates of Illinois Wesleyan University			Diploma Nursing Graduates Not of Illinois Wesleyan University		
		Senior Nursing Majors	Graduates	Total	Graduated After 1960	Graduated Prior to 1960	Total
5.	yes	100%	100		---	---	
	no	---	---		---	---	
	not applicable	---	---		100	100	
6.	yes	---	91		50	81	
	no	---	9		50	19	
	not applicable	100	---		---	---	
7.	A	100	100		100	88	
	B	100	91		67	50	
	C	100	91		67	56	
	D	95	91		67	63	
	E	100	91		83	75	
	F	100	91		83	94	
	G	100	91		83	81	
	H	100	91		100	69	
	I	95	100		---	---	
	J	100	91		67	56	
	K	95	100		---	69	
	L	95	91		---	44	
	M	100	91		67	44	
	N	100	91		---	63	
	O (ALL)	95	91		50	6	
8.	A	---	---		---	---	
	B	---	18		---	---	
	C	85	45		67	---	
	D	---	9		---	---	
	BC	---	18		---	---	
	CD	5	---		17	---	
	BCD	10	---		---	---	
	not applicable	---	---		17	100	

TABLE I.--CONTINUED

Question Nuber and Responses From Survey		Baccalaureate Nursing Graduates of Illinois Wesleyan University			Diploma Nursing Graduates Not of Illinois Wesleyan University		
		Senior Nursing Majors	Graduates	Total	Graduated After 1960	Graduated Prior to 1960	Total
9.	A						
	B		9%				
	C	80	64		67	44	
	D		9		17	12	
	AC					6	
	BC		9		17	6	
	BCD	10	9			12	
	CD	10				19	
10.	sometimes	45	27		50	19	
	always	55	64		50	63	
	never		9			19	
11.	sometimes	10	18		33	19	
	always	90	82		67	69	
	never					12	
12.	sometimes	20	27		17	31	
	always	80	73		83	69	
	never						
13.	A				17	6	
	B						
	C					6	
	D						
	AB					6	
	AC		9				
	AD		9			6	
	ABD		9		17	6	
	ACD		9		17	6	
	ALL	100	64		33	50	
14.	sometimes	5			17	19	
	always	95	100		83	81	
	never						
15.	sometimes	30	45		50	44	
	always	70	55		50	56	
	never						
16.	sometimes	30	74		50	37	
	always	70	26		50	63	

TABLE I.--CONTINUED

Question Number and Responses From Survey		Baccalaureate Nursing Graduates of Illinois Wesleyan University			Diploma Nursing Graduates Not of Illinois Wesleyan University		
		Senior Nuring Majors	Graduates	Total	Graduated After 1960	Graduated Prior to 1960	Total
17.	A		9%			13	
	B		18		17	6	
	C					6	
	AB	15	18		50	6	
	BC		9				
	ALL	85	45		33	69	
18.	sometimes	55	55		67	50	
	always	45	45		33	50	
	never						
19.	sometimes	25	55		67	37	
	always	75	45		33	63	
	never						
20.	sometimes	45	64		50	56	
	always	55	36		50	44	
	never						
21.	sometimes	45	45		67	37	
	always	55	55		33	63	
	never						
22.	sometimes	35	82		33	44	
	always	65	18		67	56	
	never						
23.	sometimes	45	55		50	50	
	always	50	45		50	50	
	never	5					
24.	sometimes	30	18		67	19	
	always	70	82		33	81	
	never						
25.	sometimes	20	45		17	31	
	always	80	55		83	69	
	never						
26.	sometimes	45	45		67	44	
	always	55	55		33	56	
	never						
27.	sometimes	50	82		50	69	
	always	50			50	31	
	never		18				

TABLE I.--CONTINUED

Question Number and Responses From Survey		Baccalaureate Nursing Graduates of Illinois Wesleyan University			Diploma Nursing Graduates Not of Illinois Wesleyan University		
		Senior Nursing Majors	Graduates	Total	Graduated After 1960	Graduated Prior to 1960	Total
28.	A						
	B					13	
	C	70	64		33	31	
	D	10	18		17	19	
	E		18		50	19	
	F	20				19	
29.	sometimes	30	18		33	25	
	always	70	82		67	75	
	never						
30.	sometimes	25	18		33	19	
	always	75	82		67	81	
	never						
31.	sometimes	30	45		83	63	
	always	70	45		17	37	
	never						
	not applicable		9				
32.	sometimes	35	64		33	37	
	always	65	36		67	63	
	never						
33.	A	5	9		33	25	
	B				17	6	
	C					13	
	D	85	82		50	44	
	AB	10	9			13	
34.	sometimes	50	45		67	56	
	always	40	55		33	25	
	never	10				19	
35.	sometimes	75	82		100	69	
	always	25	18			13	
	never					19	
36.	sometimes	70	82		67	81	
	always	30	9		33	13	
	never		9			6	

TABLE I.--CONTINUED

Question Number and Responses From Survey	Baccalaureate Nursing Graduates of Illinois Wesleyan University			Diploma Nursing Graduates Not of Illinois Wesleyan University		
	Senior Nursing Majors	Graduates	Total	Graduated After 1960	Graduated Prior to 1960	Total
37. sometimes	55%	73		100	87	
always	40	27			13	
never	5					
38. yes	25	27		17	25	
no	75	73		83	75	
39. yes	100	82		83	75	
no		18		17	25	
40. yes	95	45		50	56	
no		9			13	
unaware of		18		17	25	
undecided	5	18		33	6	
41. sometimes	25	27		17	25	
always	75	55		67	56	
never						
not applicable		18		17	19	
42. sometimes	60	45		33	50	
always	5					
never	5			17	6	
not applicable	20	55		50	44	
43. yes	60	55		50	63	
no	35	27		33	13	
not applicable	5	9		17	25	
44. yes	80	91		83	69	
no	20	9		17	31	

TABLE II. SUMMARY OF PERCENTAGES OF RESPONSES TO QUESTIONS IN THE SURVEY DEALING WITH THE NURSING PROCESS BY ILLINOIS WESLEYAN UNIVERSITY GRADUATES AND NON-ILLINOIS WESLEYAN UNIVERSITY GRADUATES IN NURSING

Categories of Questions From the Survey in Reference to the Nursing Process	Baccalaureate Nursing Graduates of Illinois Wesleyan University			Diploma Nursing Graduates Not of Illinois Wesleyan University		
	Senior Nursing Majors	Graduates	Total	Graduated After 1960	Graduated Prior to 1960	Total
Extent of Knowledge (questions 5, 6, 7, and 33.)	97.14%	93.30	95.22	66.67	64.88	65.78
Extent of Implementation (questions 10-20, 25, 26, 29-32, and 44.)	90.93	85.64	88.29	83.95	85.77	84.86
Extent of Recording (questions 21-24, 27, 34-37, and 41.)	63.29	77.78	70.54	74.01	77.63	75.82
	N=20	N=11	N=31	N=6	N=16	N=22

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