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The Questionnaire: A Method of Evaluation for Illinois Wesleyan Brokaw Collegiate School of Nursing

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THE QUESTIONNAIRE: A METHOD OF EVALUATION FOR ILLINOIS WESLEYAN BROKAW COLLEGIATE SCHOOL OF NURSING

by

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INTRODUCTION
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The faculty has been searching for accurate methods of evaluating the curriculum and performance of graduates of Brokaw Collegiate School of Nursing since the founding of the school at Illinois Wesleyan in 1959. Evaluation of these aspects would result in the discovery of faults and strengths in the program, thereby enabling the faculty to improve the curriculum annually. The school utilizes student evaluations of each course following its completion to determine how well the course objectives were fulfilled. An evaluation form has also been prepared for use by the instructor and student to assess the student's ability to perform nursing functions and utilize health and nursing principles while the student is in school. However, these questionnaires are not satisfactory for evaluating the graduate's performance or for providing other information that the faculty feels would be useful in improving the curriculum.

Therefore, a questionnaire was devised to find the post graduation vocational and educational activities of the Wesleyan graduate and her further plans. It also sought the opinions of the graduate concerning the adequacy of her preparation for the job she accepted and information that would serve as a guide to the school's curriculum development. Answers to the following questions were sought:

1. Types of positions held, where and for how long, and satisfaction in the job;

2. Education since graduation;
3. Professional activities engaged in, other than those connected with the job;

4. Future plans regarding work and education;

5. The opinion of the graduate concerning the adequacy of her preparation for the job;

6. Ideas about the duties of the baccalaureate nurse, instructor, staff nurse, etc., down to the aide.

A similar questionnaire was prepared and sent to the employer to obtain his opinions about the preparation and performance of the graduate. Both questionnaires were confidential and the results were utilized by the faculty in reorganizing curriculum and emphasizing certain areas of nursing function.

Eventually, many of the faculty decided that the questionnaire for the student was too long and that some of the questions were not pertinent or were ambiguous. At this time the questionnaire was re-evaluated and the revised questionnaire was completed in February, 1974. (See Appendix A.)
STATEMENT OF THE PROBLEM AND HYPOTHESIS
STATEMENT OF THE PROBLEM AND HYPOTHESIS

This paper deals with a twofold problem regarding the revised questionnaire for the graduate. Is this questionnaire really a valid means of assessing the graduate's preparation for her job, and does it provide useful information regarding the curriculum of the school of nursing?

This study attempts to show that this questionnaire is a valid tool for assessing the student's preparation for functioning in the role as a registered nurse, and it does provide information that can be utilized to improve the curriculum of Brokaw Collegiate School of Nursing.
SIGNIFICANCE OF THE PROBLEM
SIGNIFICANCE OF THE PROBLEM

A simple analogy will best explain the greatest significance of the questionnaire. Compare a school of nursing to the automobile industry. Just as auto manufacturers need an accurate evaluation of their products and methods of production to insure consumer satisfaction and continued improvements of the product, a school of nursing needs an evaluation of its graduates (the products) and curriculum (the method of production) to insure consumer satisfaction. In this case the consumer is the public, the hospitals, health departments and other facilities that utilize nurses. The better the product, the better the reputation of the company, which means more demand for the product. In the case of the school of nursing, it also means more applicants to choose from due to the excellent reputation of the school and therefore a better quality of student can be accepted from the many applicants. A valid, concise questionnaire provides these results as it picks up the faults and strengths of the program. Such a questionnaire can also be used as a guideline for other schools to utilize for similar purposes. There is a limited amount of published material regarding follow-up studies of graduates from schools of nursing for the purposes of assessing performance and improving curriculum development. Success of such a study regarding questionnaires may stimulate further research in related areas and find new uses for such questionnaires, as well as improve and provide for more uniform curriculum in schools of nursing.
ASSUMPTIONS
ASSUMPTIONS

1. The persons receiving the questionnaire have graduated at least one year prior to receiving the questionnaire.

2. The respondent has been actively employed as an R.N. for at least one year.

3. The respondent will respond truthfully to the questions.

4. The respondent is capable of accurate self-evaluation in regard to her ability to perform as an R.N.

5. The questionnaire is self-explanatory.

6. The questions are stated clearly and are not ambiguous.

7. Although the persons involved in the study are individuals that all perform differently, the effect of their education can still be measured in regard to their performance as nurses.

8. Opinions of R.N.'s who are not graduates of Illinois Wesleyan University, but who were given the questionnaire as a pretest, can be useful in assessing the value of questions used in the study.
LIMITATIONS
LIMITATIONS

1. The general reaction of any group of participants is often somewhat non-responsive in any research study for whatever purpose.

2. The study is limited to the specific revised questionnaire used by the Brokaw Collegiate School of Nursing at Wesleyan.

3. Previously published materials for the evaluation of such questionnaires and the curriculum of a school of nursing are limited.

4. The time allotted to the researcher and her experience in research are limited.

5. In any study where professional opinion is used to evaluate something (as in the case of the pre-test of the questionnaires given to the R.N.'s to be discussed in the "Methods" section of the paper), it must be remembered that it is only opinion and as of yet, not fact.

6. The study of or use of the employers questionnaires is outside the scope of this study.

7. Statistical measures will not be computed in this paper, but they will be defined.
NECESSARY DEFINITIONS
NECESSARY DEFINITIONS

Curriculum - all the courses offered by an educational institution, in this case related to those in the total Wesleyan campus that must be utilized by nursing majors. It also includes clinical experiences, i.e. time spent in the hospital setting.

The nursing process - refers to the four main steps utilized by the professional nurse in problem solving, and directing and providing patient care. They are assessment of the problem and patient, planning care, implementing these plans and evaluating the plan of care and its success.¹

Registered Nurse - one who has graduated from an accredited school of nursing and has successfully completed the state board examinations given by the state in which she plans to practice.²

Professional Nursing - the performance for compensation of any nursing act: a) in the observation, care and counsel of the ill, injured or infirm; or b) in the maintenance of health or prevention of illness in others; or c) the administration of medicines and treatments as prescribed by a licensed physician or dentist; or d) any act in the supervision or teaching of nursing; any of which requires substantial specialized


judgment and skill and the proper performance of which is based on the
knowledge and application of the principles of biological, physical and
social sciences acquired by means of a completed course in an approved
school of professional nursing. 3

Nursing Diagnosis - refers to the identification of nursing
problems. 4

Population - the entire group about which information is desired.
In this study there are two populations to be considered: Respondents,
those students graduated from Illinois Wesleyan University that are
recepients of the School of Nursing questionnaire; and Pre-test population,
those registered nurses not graduated from Illinois Wesleyan University
who were recepients of a questionnaire similar to that used by the School
of Nursing for the purpose of evaluating the questions for clarity and
significance.

3 Ibid., p. 6.
SURVEY OF THE LITERATURE
SURVEY OF THE LITERATURE

The literature was reviewed to find the amount of research in nursing concerning follow-up studies of graduates, methods of curriculum development, and methods of evaluating the performance of nursing functions. Other areas reviewed included curriculum development and evaluative methods outside of nursing and methods of research, including statistical analysis. By reviewing current literature it was hoped to find support for the development and use of this type of questionnaire as a valid method of evaluation, not only for curriculum but for performance as well.

Survey of Nursing Literature

I. Follow-up studies of graduates

Study conducted at the Medical College of Virginia. The use of follow-up studies of graduates for the purpose of curriculum evaluation was first brought to the attention of the nursing profession when Jean Hayter, in 1962, conducted a study of the graduates of the baccalaureate nursing program at the Medical College of Virginia. The purpose of the study was to determine the post graduation activities of graduates and their future educational and vocational plans. Ms. Hayter also wanted the opinions of the graduates and their employers concerning the adequacy of the graduates' preparation for their professional roles. She planned to use these opinions as a guide to curriculum development. Using the questionnaire, answers to the following questions were sought: types of
positions held, when and for how long; education since graduation; professional activities, other than those connected with the job in which the nurse was engaged; future plans regarding work; and the expressed opinions of the graduates and employers concerning the graduate's preparation for the job.5

A questionnaire was constructed for the graduate, using as a guideline the functions, standards and qualifications for practice for general staff nurses and public health nurses as prepared by the American Nurses' Association, the objectives of the baccalaureate degree program in nursing at the Medical College of Virginia, and the list of nursing behaviors used by Montag in evaluating graduates of community college programs. The questionnaire was then pretested by graduates of various baccalaureate degree programs in nursing and refinements were made on the basis of the pretest results.6

The revised questionnaire was mailed to each of the graduates with a stamped, self-addressed envelope and a letter explaining the purpose of the study. The letter assured the graduate of anonymity, promised the respondent a summary of the findings and asked for her co-operation in completing the questionnaire. A letter of reminder was sent at the end of three weeks and again after six weeks. Ninety-six percent of the

6 Ibid.
questionnaires were returned. A questionnaire was also designed for employers of the graduates in such a way that the graduates' and the employers' opinions could be compared. The questionnaire was sent to the most recent employer with a similar letter of explanation asking the director to refer the questionnaire to the graduate's immediate supervisor.  

The results obtained from the questionnaire about the ranking of the clinical courses according to their comparative values were similar to the rank order of the graduate's mean scores on State Boards. (See Appendix B, Table 1.) This fact makes it possible to infer that the curriculums of the clinical courses considered most important were well developed, and perhaps, the curriculums of the lower ranked courses were lacking the same level of development.  

The graduates and employers both gave good evaluations in the area of performance of nursing functions, but areas of weakness were noted in human relations and administration. Based on these results and the knowledge that the follow-up study is only one way of evaluation, it was recommended that efforts be made to help students develop skills in human relations, oral communications and administration. The study did indicate the effectiveness of a questionnaire to determine graduates' and employers' opinions, but it offered no real substance for determining a valid measurement tool.

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7bid., pp. 45-46.  
8bid., p. 47.
Follow-up study conducted at the University of Kentucky. In a later study, also conducted by Ms. Hayter, further statements about the value of graduate follow-up studies were mentioned. "Evaluation is always an essential part of the educational process."\(^9\) According to Ms. Hayter, it should be continuous throughout the educational process, but the real test of the effectiveness of an educational program is in the performance of its graduates. They are in a position to make suggestions about their educational program because they are away from the academic setting and are faced with job expectations as nurse practitioners. A follow-up study can provide valuable guidance to the faculty for curriculum improvement.\(^10\)

The second questionnaire, which was prepared for use at the University of Kentucky by Ms. Hayter, was similar to the one used at the Medical College of Virginia. However, most of the items on this questionnaire could be answered with a checkmark. Additional comments about curriculum and job satisfaction were encouraged. Again, a similar questionnaire was mailed to the employer. The statistical measure of Chi-square was used to determine the levels of significance for differences in the performance of nursing behaviors.\(^11\)

The graduates were asked to indicate which of certain positions


\(^10\)Ibid.

\(^11\)Ibid.
they felt most competent to assume after graduation, such as head nurse, staff nurse or instructor. The findings indicated the graduates' beliefs concerning the adequacy of their educational program in preparing them for their nursing roles. They also indicated how well they were prepared to perform twenty nursing behaviors using the ratings "excellent", "good", "fair", or "poor". When responses of graduates for various years were compared, curriculum clues were discovered which showed the strengths and weaknesses of the graduates and reflected upon their educational preparation.12 The section on the employer's questionnaire will be deleted as it is not within the scope of this study.

Information secured from the questionnaire concerned the vocational and educational activities of the graduate. It showed the present trends of nursing and the types of jobs graduate nurses sought. From other information provided by the responses, inferences about continued education and job advancement could be made. The evaluations of the educational preparation of the graduate provided information about the curriculum and its value.13

Study of an evaluation tool used at the University of Massachusetts School of Nursing. A third published report on an evaluation tool used at the University of Massachusetts School of Nursing demonstrated

12Ibid.

13Ibid., pp. 56-59.
the development of a four point rating scale. The rating scale had a brief narrative description for each numerical value, but in this study differentiating factors turned out to be those of consistency instead of quality, viz., "sometimes", "usually", or "always".\textsuperscript{14} Because of this, it was not really an accurate study. When values were assigned to the adjectives, the students reacted negatively because they could not accept the descriptions and their values as presented by the researcher.\textsuperscript{15} Even after other adjectives were assigned the values (4-"superior", 3-"above average", 2-"average", 1-"needs improvement"), "needs improvement" was the response chosen by most students regardless of the quality of their performance, which shows the hazards of using such ambiguous, ill-defined terms.\textsuperscript{16}

II. Need for Research and Evaluation of Clinical Performance.

Verhonick has stated that "in the past two decades few studies have been completed in the clinical setting where the majority of nursing practitioners work".\textsuperscript{17} In the Overview of Nursing Research 1955-1968,

\begin{itemize}
\item \textsuperscript{15}Ibid., pp. 20, 24.
\item \textsuperscript{16}Ibid., pp. 24, 31-33.
\item \textsuperscript{17}Phyllis J. Verhonick, "Clinical Investigations on Nursing," Nursing Forum, 10:80; January, 1971.
\end{itemize}
Abdellah cites a series of research priorities for nursing of which the first four refer to the need for clinical evaluation and investigation. These and similar statements by other researchers show the need for the formulation of valid devices to evaluate performance and the need for research in the clinical area.

"If nursing research is to be useful it must be relevant, reliable and valid. Relevancy can be guaranteed if the research focuses on the real concern of nursing - the provision of health care to the people." Education supposedly prepares the graduate to provide health care to the people as a nursing professional. Therefore, research in the area of establishing and evaluating the curriculum of schools of nursing focuses on the real concern of nursing and is indeed a relevant area for research. To be considered valid, research into curriculum evaluation must be made in terms of the program objectives. Educators need to know at what professional level their graduates are able to perform.

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20 Ibid., p. 377.
The fact that evaluations must be made in terms of behavioral objectives has already been stated. The objectives of professional schools of nursing stress behaviors such as understanding concepts and generalizations, critical thinking, decision-making and problem solving. It then follows that the evaluation programs of the schools of nursing should be set up in these terms. Examinations are a good way to evaluate learning, but if an instructor stresses problem solving as a goal and then requires the student to memorize facts to pass the examination, the instructor is obviously negating the objective of fostering the problem solving approach. Therefore "efforts by the instructor to assist students in becoming effective problem solvers are likely to be ineffective unless the students' achievements in terms of problem solving skills are measured." It becomes apparent, therefore, that problem solving is another term for the nursing process.

III. The Evaluation Tool Itself

Moritz and other researchers have presented suggestions for the development of a tool for evaluating clinical performance. To prepare such a tool the evaluator should:

1. Analyze course objectives and state specific behaviors which show success,

2. Analyze anecdotal records from students and teachers as a guide in the construction of a list of behaviors,

---

3. Establish a format based on organization and expedience,

4. Review the tool with colleagues to clarify inappropriate or ambiguous statements and expand the number or quality of those listed (pretest),

5. Discuss those criteria necessary for the assignment of different, definite ratings.²³

The strengths found in a questionnaire based on the format described above are that

1. The questionnaire focuses on the nursing process rather than tasks or technical skills,

2. It describes the quality of performances,

3. The descriptive guide focuses on observable and self-evaluative behavior,

4. It has a positive focus and is flexible to different settings of employment.

This type of questionnaire also focuses on areas of the nursing process that have gone unnoticed and should be investigated. The tabulating and weighting of ratings with this type of questionnaire are also fairly easy.²⁴ As Moritz stated, it is time that nursing researchers began to use the tools of evaluation for evaluation instead of using restrictive grade assignments that do not measure behavioral characteristics.²⁵

Meyer offers support of the questionnaire evaluation form. She states that performance evaluation records can be devised to measure or

²³ Moritz, loc. cit., pp. 32-33.
²⁴ Ibid., p. 33.
²⁵ Ibid., p. 34.
denote some behavioral changes directly. Checklists are used for this and are especially useful if they can be quantified to yield a score. Rating scales developed for use with the items to be measured can be used to determine how well the behavior was performed. Comparisons can also be made between groups, individuals, and the performance of individual behaviors. Brown also agrees that questionnaires constructed in the aforementioned manner are an excellent means of assessing attitudes and performances.

Review of Educational Literature

According to Taba, a curriculum contains a statement of aims and specific objectives; indicates some selection and organization of content; implies or manifests certain patterns of learning and teaching; and includes a program for evaluation of the outcomes. Scientific curriculum development is based on needs drawn from an analysis of society, culture, studies of learners and graduates, and the learning process. It also utilizes an analysis of the nature of knowledge in order to determine the purposes of the school and the nature of its curriculum.


The criteria for a program of evaluation in general education are similar to those stated for an evaluation of the nursing curriculum. The program of evaluation needs these components:

1. It must be consistent with curriculum objectives;
2. It must be as comprehensive in scope as are the school objectives;
3. The results must be sufficiently diagnostic to distinguish varying levels of performance and to discuss the strengths and weaknesses in the educational process;
4. It must be valid - validity refers to the capacity of the evidence to describe what it was designed to do and is very important in improving curriculum;
5. Objectives need to be broken into components to increase the validity of the tool;
6. Evaluation should be a continuous process.29

According to Taba, data interpretation should provide for basic curriculum improvement. In interpreting group data one focuses on average score distributions and frequencies. Taba further states that it is necessary to compare several grade levels with each other to see if errors in one level disappear in the next level.30 Better education and a dynamically conceived curriculum will result from following a certain order. One must first diagnose the needs of the students, then form objectives, select and organize course content, select and organize

29 Ibid., pp. 316-323.
30 Ibid., pp. 334-335.
learning experiences and finally, determine what to evaluate and how
to evaluate it.31

Review of Research Literature in Support of the Use of
A Questionnaire as an Evaluative Tool

Mailed questionnaires are probably the most widely used and most
highly criticized data gathering service. There are two types of question-
naires. The "closed" form calls for short, check responses that provide
"yes" or "no" answers, short responses, or checking items from a list of
suggested responses. Unanticipated responses are provided for with an
"other" column. This questionnaire is easy to fill out, takes little
time, keeps the respondent on the subject, is relatively objective and is
usually easy to tabulate and analyze. The "open" form calls for a free
response from the respondent and provides for a greater depth of response.
It takes longer to answer; therefore, returns are sometimes poor. It is
also harder to interpret, tabulate and summarize the responses. Many
questionnaires include items of both types. Each form has its own merits
and the researcher must decide which best suits his purposes.32

When developing a questionnaire it is necessary to remember the
importance of wording to avoid ambiguity. The researcher should not use
descriptive adjectives and adverbs with no agreed upon meaning, such as
"frequently" and "occasionally". No double barreled questions should be

31 Ibid., p. 13.

32 John W. Best, Research in Education (New Jersey: Prentice Hall
used. When asking for comparisons, a point of reference is needed, exemplified by "superior", "average", or "below average". Questions must be phrased so that they will provide a complete response and be appropriate for all responses. The researcher must provide for the systematic quantification of responses by the use of ranking. The items can then be tabulated by inverse weightings.33

Review of the Literature for Useful Statistical Measures

The use of statistical measures to determine the level of performance of the graduate is not within the scope of this study. Therefore, the statistical procedures that would be used for this will only be stated and briefly defined. The reader is referred, for a more detailed description of these devices, to Young and Veldman's book, Introductory Statistics for the Behavioral Sciences.

"The mean is a measure of central tendency that most closely approximates what is commonly meant by 'average'."34 It is defined as "the sum of all the scores in the distribution divided by the total number of scores".35 This statistical measure is used to determine the average performance of each student in each area of the nursing process.

Either of two measures can be used to determine the degree of

33 Ibid., pp. 164-166.
35 Ibid., p. 53.
difference between the evaluation of performance the employer gives and the self-evaluation provided by the graduate. These measures are chi square and the analysis of variance. Chi square is the simpler of the two to compute and is a comparison of variances.\textsuperscript{36} The analysis of variance is a comparison of means and is a more exact measure of the degree of difference.\textsuperscript{37} Either measure can be used to compare classes or individual students.

\textsuperscript{36} Ibid., pp. 215-221.

\textsuperscript{37} Ibid., pp. 261-271.
METHODS OF RESEARCH
METHODS OF RESEARCH

As previously mentioned, the pretest is one means of evaluating the contents of a questionnaire. For this reason, a questionnaire similar to that used by Illinois Wesleyan University's School of Nursing was prepared and administered to fifty registered nurses employed by various health care agencies in Danville, Illinois. (See Appendix C.) The random sample represented 20% of the total registered nurse population in Danville and was chosen at random by selecting the names of individuals from a list acquired from the various health care agencies.

The introductory explanation to the questionnaire requested that each participant respond to the questions and briefly comment on the clarity of each question. The pretest group was also asked to comment on the usefulness of each question for evaluating performance and/or providing information that could be used to modify the curriculum of a school of nursing. Verbal explanations of the study and the purpose of the questionnaire were given to the participants when they received the questionnaires. All of the questionnaires were returned, but only 82% of these were useful.

Literature in nursing and education was reviewed to determine the criteria for developing and evaluating tools that would measure performance and provide information relevant to curriculum improvement. Statistical formulas were reviewed to determine which ones would be useful in computing scores that measured both performance and significant differences in measures of performance. It was necessary to review
literature on rankings and statistics to determine if the rating scale of the Wesleyan questionnaire could be utilized for statistical measures. Finally, an interview was held with Miss Eleanor Allen of the School of Nursing to determine the guidelines by which the Wesleyan questionnaire was developed.
IMPRESSIONS
Analysis of the pretest results

The use of pretest results is possible only when those involved in the pretest are willing to co-operate by critically evaluating the content of the questionnaire. Although all fifty pretest questionnaires were returned, only 60% of them were useful for evaluating the questionnaire. The following percentages and statements are based on the samples from the usable questionnaires.

Seventy-one percent of the pretest group felt that the total content of the questionnaire was useful for evaluating performance and providing some information about the adequacy of the curriculum of the nursing school. They felt that from the information obtained from responses to the section entitled "Education", inferences about the impetus provided by the school of nursing to encourage the student to seek further education could be made. The information about the graduate's past and present employment reflected her opinion of the jobs she felt prepared to hold. Comments about future changes in employment could show if the graduate was now ready to assume more responsibility by accepting a more demanding position.

One of the objectives of a school of nursing is to encourage its graduates to take an active interest in professional organizations and to encourage the graduate to become active in civic affairs. It was felt by this sub-group of the pretest population that the success of the school in meeting this objective could be determined by the responses to sections III and IV.
The total pretest group felt the sections concerning the curriculum of the school of nursing and the evaluation of nursing performance were useful for obvious reasons. However, 5% of the group felt that the explanatory introduction to the section evaluating the performance of nursing behaviors was vague. The phrase "the degree to which your educational program prepared you to function" could be taken literally or it could be interpreted as, "As an individual how did I perform as a result of my educational program?". They did feel that the rating system was a good idea and would be useful in comparing performances. The total pretest group also felt that the use of the nursing process to assess performance was an excellent idea.

Twenty percent of the pretest group felt the questions concerning continued education and professional and civic activities were not necessary or useful in evaluating the curriculum of a school. They felt questions concerning the amount of extra clinical experience the student had while in school would be more useful. These questions would refer to the type and amount of clinical experience the student acquired during vacations while in school. It was felt that responses to these questions would reflect on the adequacy of the clinical experience in the student's school of nursing program.
Validity of the Wesleyan Questionnaire: Supported with information from the survey of literature

The method of and criteria for establishing valid tools for evaluation have previously been stated in this paper. The reader is referred to pages 16-17 for a review of these items. How well does the Wesleyan questionnaire meet these requirements?

The Wesleyan questionnaire was prepared using the objectives of the School of Nursing, which includes the components of the nursing process, as the guidelines. The questionnaire was reviewed by a committee of nursing faculty and nursing students in order to assess the clarity and pertinence of each question. Revisions were made when necessary.38

It is necessary to list the objectives of Illinois Wesleyan University's School of Nursing to show that the questionnaire has been set up in terms of these objectives and that the responses to the questions will offer information valuable for curriculum improvement. Briefly, the objectives of the School of Nursing are as follows:

1. To develop professional competence to give nursing care to people in the hospital, home, and community; care based upon relevant knowledge, compassion, respect and a striving toward the goal of supreme well-being for all people. The behaviors exemplifying this are understanding the biological, physiological, sociological, and psychological sciences to give care; developing the skills to apply the sciences; developing the ability to listen, hear and react appropriately to what is said by the patient, his family and co-workers; developing the ability to observe with discernment and report observations in writing and speech; utilizing family members

38 Interview with Miss Eleanor Allen, Faculty Member of the School of Nursing at Illinois Wesleyan University, April 26, 1974.
and working with them as part of the health team; functioning as a health team member and/or leader; recognizing, accepting and seeking help in areas outside one's skill or the role of the nurse;

2. To develop social understanding: the understanding of the essential characteristics of situations in which persons interact. This understanding is implied in social understanding; it is the acquisition of skills and attitudes necessary to act productively in interpersonal situations and is exemplified in part by the following behaviors: promoting and maintaining interpersonal relationships, promoting communication, promoting an individual's self-respect, and promoting mutual respect and understanding, reacting with compassion, developing skills in self-expression and evaluation, and understanding objectives in terms of society and the role one assumes as a professional and civic participant in society;

3. To develop a professional personality as represented by attitudes, ideals and traits which exemplify a philosophy of life; reflecting values desirable for all liberally educated persons and essential for persons dedicated to a life of service. These values foster an appreciation of the worth of an individual and give direction to one's life;

4. To develop enthusiasm for study, characterized by a zealous disposition to inquire and seek new information which leads to intellectual growth;

5. To develop an understanding and appreciation of research and to participate in research in relation to one's own potential.

The following paragraphs will show how the content of the Wesleyan questionnaire was set up to measure the attainment of these objectives.

*39Objectives of the School of Nursing, (Bloomington, Ill.: Illinois Wesleyan University, 1970), pp. 1-3.*
The explanatory introduction to the questionnaire assures the respondent of anonymity and provides directions for completing the questionnaire. The letter accompanying the questionnaire explains the purpose of the questionnaire, the fact that the employer will be involved, and asks for the graduate's cooperation.

The information regarding name and address of the graduate are needed to know who has responded and to facilitate communication with the employer. Responses to Section II, entitled "Education", will provide information useful in assessing the degree to which the fourth objective of the School of Nursing was met. It not only determines if the graduate has developed an interest in pursuing her education, but to what degree and how she is going about it.

The section regarding employment is useful for two reasons. It provides the researcher with the name and address of the employer to ask his cooperation in the evaluation. Furthermore, it provides information about the type of job the graduate feels prepared to handle now and at the time of her graduation. This shows how well she felt prepared by her education to hold certain jobs. The specific questions regarding the orientation period are a means of assessing the graduate's preparation, in that it is often believed that the amount of time one has to spend in an orientation period reflects her level of preparedness of the job, i.e., the longer one spends in orientation, the less prepared she was for the job at the start.

The section concerning the graduate's professional activities was
developed to measure the second and fifth objectives of the School of Nursing. A behavior that exemplifies the development of social understanding is the role one assumes as a professional as a participant in society. This involves the person's affiliation and activity with professional organizations and any teaching that may have been done as part of her professional role. The question regarding research is obviously one that measures the influence of one's education to stimulate the professional to become involved in research. The degree of success in achieving the second objective of the School of Nursing is also measured by the section on civic or community activities, as civic participation is implicit in an understanding of the objectives of society.

A critique of the nursing program is direct evaluation of the curriculum in regard to course and clinical experience. After having been confronted with job perspectives and functioning as a nurse practitioner, the graduate can better evaluate the curriculum in regard to usefulness of certain courses and the clinical experience as it prepared her to function as a professional. The final question in this section offers information useful for curriculum improvement by discovering what needs to be taught to the nursing student that has not been taught already.

The final section on evaluating nursing performance reflects the behaviors which exemplify the fulfillment of the objectives of the School of Nursing and measures the degree to which they were developed in the individual by the curriculum of the School. These behaviors have been taken from the objectives they exemplify on pages 27-28. The nursing
process is an integral part of the curriculum of all schools of nursing and can best be evaluated by the behaviors it fosters. The ability of the professional nurse to function according to the nursing process should be the final means of evaluating the quality of the program of the school of nursing she attended. It must be acknowledged that individuals perform at various levels regardless of their educational program, but with information provided elsewhere in the questionnaire, and the evaluation of the graduate's performance, inferences can be made about the content of the curriculum.

Conclusions

As stated earlier, evaluations must be made in terms of program objectives. The program objectives of the Wesleyan School of Nursing stress such behaviors as problem solving (the nursing process), decision making, developing leadership qualities and developing an interest in education and research. It is now apparent that the Wesleyan questionnaire has been established according to the criteria set forth by Moritz and other researchers. Therefore, the questionnaire can be used to measure the attainment of course objectives, and as a result of the responses to various questions, inferences about the curriculum can be stated.

The pretest results showed that the majority of professionals who participated in evaluating the questionnaire felt the content pertinent

40Nicholls, op. cit., p. 377.
and unambiguous. Only a small percentage of the pretest population offered criticisms of the questionnaire. Based on these results and the support provided by literature in the areas of nursing, education and research, the writer concludes that the questionnaire devised by the faculty of the School of Nursing is a valid means of assessing performance and gaining information about curriculum content.

However, it must be noted that measures of performance are somewhat subjective and will vary from individual to individual regardless of her educational preparation. Because of this, the evaluation process must be carried out for each course and for the performance of the individual student. As stated in the introduction, this continuous process of evaluation is carried out at Illinois Wesleyan. By combining the information secured from graduates with that obtained from the students who have just completed specific nursing courses, curriculum can be improved at each level. The individual student will be given guidance based on her performance to help her achieve her greatest potential.

Use of this questionnaire, or one similar to it, if incorporated by other schools of nursing, could provide the public with better prepared nursing professionals and could provide the educational system with a more uniform program for schools of nursing to produce graduates who function at their greatest potential. The questionnaire also focuses on areas that, if stressed by schools of nursing, will strengthen the profession of nursing and gain such professionals the recognition they have been striving for. These areas include research and the need for continued education at the masters and doctoral levels.
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BIBLIOGRAPHY

Books


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Aydelotte, Myrtle K. "Nursing Education: Putting it all together", Journal of Nursing Education. 11: 21-26, November, 1972.


Hohloch, Faith and Mary Coulson. "Developing an Attitude Inventory," Journal of Nursing Education. 7: 9-14, August, 1968.


Documents

Appendix A

Questionnaire
Illinois Wesleyan University
School of Nursing
Dear

Annually, the faculty of The School of Nursing evaluates the curriculum, using appraisals of the professional performance of the graduates as one source of data for the study. The Personnel Development and Research Committee of the School organization cooperates with the Faculty in the collection and analysis of the data.

Evaluative questionnaires are sent to all graduates of The School of Nursing approximately one year after graduation. Upon return of the completed questionnaire, a similar, but shorter, questionnaire is sent to the employers of the graduates. The responses of both questionnaires are tabulated, analyzed and summarized into a complete report for each class. This summary also becomes a part of the compilation of data from the graduates of classes of 1963 through 1970 of The School of Nursing.

It is hoped that as a graduate of The School of Nursing, you will assist the faculty with the Curriculum evaluation study. If you will complete and return this questionnaire by April 5, 1974, it will be appreciated, and will facilitate the work of the Faculty and Committee.

Cordially,

Eleanor M. Allen
Chairman
Personnel Development and Resources Committee

EAAmb
Illinois Wesleyan University
School of Nursing

A confidential questionnaire for the graduate of Illinois Wesleyan University, School of Nursing.

Directions: Please use a check mark to indicate your responses whenever possible. A few words will suffice for those questions which cannot be answered by a check mark. Use the reverse sides of the questionnaire if you need additional space or wish to make specific comments.

1. Name ________________________________ Last ________ First ________ Maiden name, if married

Address ________________________________________________________________

II. Education

A. Do you intend to supplement, or have you supplemented, your basic nursing education with additional academic work: Yes ______ No ______

B. If you answer to A is yes:

1. What kind of academic work do you intend to take, or have you taken?
   - College courses ______ Toward Master's Degree ______ Field ______
   - Selected Courses __________
   - Continuing Education Courses (or Units) ______

2. Please list courses you have completed, or are taking now.

<table>
<thead>
<tr>
<th>Title of Course</th>
<th>Credit or C.E. Units</th>
<th>Name of Agency</th>
<th>Dates</th>
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III. Employment Following Graduation

A. Present Employment

1. Name and Address of employing agency

2. Name of Director of Nursing (Include specific title)

3. Date beginning employment

4. Position title Clinical area

5. What was your reason for accepting this position?

6. Are you satisfied? Yes No

Please explain

7. Did you participate in an orientation program in this agency? Yes No

If your answer is No, please explain

Please comment on the orientation program (when given, type, length, etc)

8. Do you anticipate any change in your current employment position within the next year? Yes No

If your answer is yes, please explain the change, and reasons for changing

B. Other positions you have held since graduation. (Include non-nursing employment)

Position title Clinical area Employing agency Inclusive dates

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-----------------------------------------------------------------------------------
10. Other Professional Activities

A. Please list any professional organizations of which you are a member.
   (e.g., R.N.A., N.A., N.A., etc.)

B. Identify offices and/or committee responsibilities you have, or have had, in
   any of the above named organizations.

C. Have you given any talks on subjects pertaining to health and/or nursing?
   Yes ______ No ______

   Topics ________________________________ Groups ________________________________

D. Have you written any articles, pamphlets, or brochures for publication?
   (or co-authored)
   Title(s) ________________________________ Publication(s) ________________________________

   Yes ______ No ______

E. Indicate any ways in which you have been involved in research.

   ________________________________

11. Civic or Community Activities

A. Please list any civic or community agencies or organizations of which you
   are a member, and through which you have been an active participant in
   activities that have contributed to the welfare of the community. (e.g.,
   Bell-Ringer, Mental Health Association, Fund Raiser for Heart or Cancer
   Societies, etc.)

   ________________________________

   ________________________________

   ________________________________

   ________________________________
A. Please list courses you completed at I.W.U., both academic and professional, which have been of special value to you. Give reasons.

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<tr>
<th>Courses</th>
<th>Reasons</th>
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B. Which course(s) was (were) of minimal value to you? Why?

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<th>Courses</th>
<th>Reasons</th>
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C. Comment on the clinical laboratory experiences you had in your nursing program at I.W.U. (Adequacy, quality, amount of time, content, etc.)

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D. Are there any aspects of nursing which you were not taught that you believe should be included in the nursing program?

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</table>
E. Evaluation of Nursing Performance

Directions: Listed below are steps in the nursing process with descriptive statements of nursing actions or behaviors. Please check, according to the scale given, the degree to which your nursing program at J.W.U. prepared you to function.

Scale: 1 - Well prepared; could do this without difficulty
2 - Adequately prepared; knew principles, but needed some assistance
3 - Not prepared; needed teaching
4 - Not applicable in present position

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<th>2</th>
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<tbody>
<tr>
<td>1. Assessment</td>
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<tr>
<td>1. Collects data in a systematic manner.</td>
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<td>2. Analyzes and validates data using appropriate resources.</td>
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<tr>
<td>3. Identifies patient problems and needs with patient, family and personnel.</td>
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<td>4. States nursing diagnosis.</td>
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<td>5. States priorities for nursing care.</td>
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<td>6. Observes, reports and records pertinent information, signs, symptoms and changes in patient's condition.</td>
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<td>7. Describes behaviors which may indicate nurses and/or patients attitudes and feelings.</td>
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<tr>
<td>8. Uses appropriate interpersonal techniques in establishing therapeutic relationships with patients.</td>
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11. Planning

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<tr>
<td>1. Formulates immediate and long-term goals for care.</td>
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<td>2. Develops comprehensive plan of care with decisions based on scientific principles.</td>
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</table>
| 3. Prescribes nursing actions with consideration of
  a. pathophysiology |     |     |     |     |
  b. psychosocial needs |     |     |     |     |
| 4. Plans health teaching, including appropriate health
  team or family member. |     |     |     |     |
| 5. Communicates plans effectively to nursing team members,
  the patient and family:
  a. Orally |     |     |     |     |
  b. In writing (Kardex, Nursing Care Plans) |     |     |     |     |
III. Implementing

1. Performs selected technical nursing measures

2. Controls the environment to provide for patient's comfort and safety.

3. Uses appropriate interpersonal techniques in working with colleagues and personnel.

4. Directs the work of team members and others for whom you assume responsibility, using teaching and learning opportunities whenever possible.

IV. Evaluating

1. States criteria and evaluates effectiveness of nursing actions and care.

2. Revises nursing diagnosis when indicated.

3. Suggests alternative approaches.

4. Modifies goals and plans for nursing care according to patient's progress or response.

5. Evaluates the work of team members and others for whom you assume responsibility.

9. Additional Comments:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Appendix B

Clinical Course Rankings
Compared to State Board Mean Scores
# CLINICAL COURSE RANKINGS
## COMPARED TO STATE BOARD MEAN SCORES*

How Graduates' Ranked Their Six Major Clinical Nursing Courses According to Their Comparative Value—Listed with the Most Valuable First

<table>
<thead>
<tr>
<th>Medical Nursing</th>
<th>Medical Nursing</th>
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<tbody>
<tr>
<td>Surgical Nursing</td>
<td>Surgical Nursing</td>
</tr>
<tr>
<td>Pediatric Nursing</td>
<td>Psychiatric Nursing</td>
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<tr>
<td>Public Health Nursing</td>
<td>Pediatric Nursing</td>
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<tr>
<td>Psychiatric Nursing</td>
<td>Obstetrical Nursing</td>
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<tr>
<td>Obstetrical Nursing</td>
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</table>

*Rank Order of the Mean Scores of Graduates on the State Board Pool Examinations

*Taken from Jean Hayter's, "Follow-up Study of the Graduates of the Baccalaureate Program in Nursing," *Nursing Research*, 12: 45, Winter, 1963.*
Appendix C

Questionnaire Given to Pretest Population
A confidential questionnaire to the graduate of a school of nursing.

Directions: Please use a checkmark to indicate your responses whenever possible. A few words will suffice for those questions which cannot be answered by a checkmark. Please use the reverse side to comment on what you feel to be the validity or usefulness of each question.

Name ____________________________ (Last) ____________________________ (First) ____________________________ (Maiden name if married)

Address ____________________________

I. Education
   a. What type of nursing program did you graduate from?
      Associate Degree
      Hospital Based
      Baccalaureate Program
   b. Do you intend to supplement, or have you supplemented, your basic nursing education with additional academic work?
      Yes ______ No ______
   c. If your answer to B is yes:
      1. What kind of additional academic work do you plan to take, or have you undertaken?
         College courses ______ Field ______
         Toward Bachelor's Degree ______
         Toward Master's Degree ______
         C.E.U. ______ Selected courses ______
   2. Please list courses you have completed, or are taking now.
      Title of Course ____________________________ Credit or C.E.U. ______ Name of Agency ____________________________ Date of Courses ____________________________

II. Employment Following Graduation
   a. Present employment
      1. Name and address of employing agent: ____________________________
      2. Name of Director of Nursing of employing agency (include specific title) ____________________________
      3. Date beginning employment: ____________________________
      4. Position Title: ____________________________
         Clinical area: ____________________________
      5. What was your reason for accepting this position? ____________________________
      6. Are you satisfied? Yes ______ No ______
         Please explain: ____________________________
1. Did you participate in an orientation program offered by this agency?  
   Yes ______  No ______ If not, please explain: ________________________________  

   Please comment on the orientation program (when given, type, length of time, etc.):  
   _______________________________________________________________  
   _______________________________________________________________  

2. Do you anticipate making any change in your current employment position within the next year?  
   Yes _______ No _______ If your answer is yes please explain the change, and your reasons for changing:  
   _______________________________________________________________  
   _______________________________________________________________  

3. Other positions you have held since graduation:  
   Position title  Clinical area  Employing agency  Dates  

III. Other professional activities:  
   a. Please list any professional organizations of which you are a member  
      (ANA, NLN, NEA, Etc.)  
   b. Identify offices and/or committee responsibilities you have had in any  
      of the above organizations.  
   c. Have you given any talks on subjects pertaining to health and/or nursing?  
      Yes ______  No ______  
      Topic(s)  Group(s)  

   d. Have you written any articles, pamphlets or brochures for publication?  
      Yes ______  No ______  
      Title(s)  Publication(s)  

   e. Indicate any ways in which you have been involved in research:  
   _______________________________________________________________  
   _______________________________________________________________  

IV. Civic activities  
   a. Please list any civic or community agencies or organizations of which you are a member, and through which you have been an active participant in activities which have contributed to the welfare of the community.  
      (e.g.  

V. Evaluation of the Curriculum in Nursing at your school.
A. Please list courses you completed, both academic and professional, which have been of special value to you. Give reasons.

<table>
<thead>
<tr>
<th>Course</th>
<th>Reasons</th>
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</table>

B. Which courses were of minimal value to you? Why?

<table>
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<tr>
<th>Course</th>
<th>Reason</th>
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</table>

C. Comment on the clinical laboratory experiences you had in your nursing program (adequacy, quality, content, amount of time, etc.)

D. Are there any aspects of nursing you were not taught that you believe should be included in the nursing program?

VI. Evaluation of Nursing Performance.

Directions: Listed below are steps in the nursing process with descriptive statements of nursing behavior. Please check, according to the scale given, the degree to which your educational program prepared you to function.

Scale: 1 - Well prepared, could do this without difficulty.
2 - Adequately prepared, but needed some assistance
3 - Not prepared, needed teaching
4 - Not applicable in present position

1. Assessment
   1. Collects data in a systematic manner, using appropriate resources.
   2. Analyzes and validates data
   3. States nursing diagnosis
   4. Identifies patient problems and needs with patient, family, and personnel
   5. Describes behaviors which may indicate nurses' and/or patients' attitudes and feelings.
   6. States priorities for nursing care.
   7. Observes, reports, and records pertinent information, signs and symptoms and changes in the patient's condition.
   8. Uses appropriate interpersonal techniques in establishing therapeutic relationships with patients.
II. Planning

1. Formulates immediate and long term goals
2. Prescribes nursing actions with consideration of patient's:
   a. pathophysiology
   b. psychosocial needs
3. Plans health teaching, including appropriate health team or family member
4. Develops comprehensive plan of care with decisions based on scientific principles.
5. Communicates plans effectively to nursing personnel and to the patient in writing and verbally

III. Implementing

1. Uses appropriate interpersonal techniques in working with colleagues and personnel
2. Directs and evaluates the work of team members, or others for whom you assume the responsibility, using learning and teaching opportunities whenever possible.
3. Performs selected technical nursing measures effectively.
4. Controls the environment to provide for the patient's comfort and safety.

IV. Evaluation

1. States criteria and determines effectiveness of nursing action.
2. Suggest alternative approaches
3. Modifies goals and plans for action according to patient's progress or response.
4. Restates nursing diagnoses when indicated.