NURSING PAPERS
PERSPECTIVES EN NURSING

STUDY OF NURSING CARE:

PROBLEMS IN CARE OF
THE HOSPITALIZED ELDERLY

STUDIES IN NURSING EDUCATION:

SIMULATED PATIENTS AND PAPER
PROBLEMS COMPARED

WRITTEN SIMULATIONS

PROBLEM ORIENTED RECORDING AS
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Sommaires en français

Pour une meilleure compréhension des problèmes de nursing dans les soins prodigués aux personnes âgées en milieu hospitalier

Les résultats présentés dans cet article proviennent d'un projet de recherches en nursing, d'une durée de trois ans, réalisé par le service de médecine gériatrique de l'Université de Manchester, en Angleterre. L'étude a permis d'explorer les soins infirmiers en gériatrie, en décrivant les pratiques courantes de nursing auprès des personnes âgées, en soulignant les contraintes inhérentes aux situations et en recherchant des concepts pertinents à l'élaboration éventuelle d'un modèle de nursing en gériatrie. Huit études progressives et connexes ont été réalisées. Les résultats ont montré que les soins infirmiers dispensés aux personnes âgées seront d'autant plus efficaces et valables qu'ils se basent sur une connaissance approfondie du processus normal de vieillissement, sur les rapports dynamiques entre infirmière et client, et que les compétences de chacun dans le domaine de la solution des problèmes et de la recherche se concentrent sur l'amélioration des effets des soins aux malades.

Comparaison entre deux types d'expériences d'apprentissage, dans un cours de nursing de deuxième année

En nous servant de deux méthodes d'enseignement différentes en neurologie théorique et en nursing clinique, soit une méthode utilisant des "pseudo-malades"* et une autre basée sur des problèmes théoriques écrits, nous avons cherché à savoir quels en étaient les résultats en matière d'apprentissage et les bénéfices que pouvaient en retirer les étudiants.

L'échantillon consistait en soixante trois étudiants en deuxième année de nursing à l'université McMaster. En s'appuyant sur les résultats d'un prétest, on a apparié les étudiants dans l'un des deux groupes expérimentaux. Dans le Groupe 1 (P_1), nous avons appliqué la méthode d'enseignement utilisant des pseudo-malades tant en neurologie théorique que dans le cours de nursing clinique. Dans le Groupe II (P_2), nous avons utilisé la méthode des pseudo-malades pour la neurologie et la méthode basée sur des problèmes théoriques

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* A savoir, une personne entraîné à se comporter comme un malade et qui "feint" d'être un malade en observation.

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pour le cours de nursing clinique. Après analyse des données il s'est avéré que les résultats d'apprentissage et les bénéfices acquis par les étudiants étaient similaires dans les deux groupes.

Notre recherche a également porté sur d'autres domaines, notamment l'utilisation de situations cliniques aiguës et chroniques, la validité, des méthodes utilisées pour évaluer les étudiants quant aux objectifs d'apprentissage, et le concept d'instructeurs experts par opposition à des instructeurs non spécialisés.

Des simulations écrites de problèmes: une méthode d'enseignement

Dans cette expérience, on se sert de simulations écrites de problèmes de nursing clinique pour étudier et approfondir la capacité de l'étudiant(e) de résoudre des problèmes. L'étudiant(e) passe par une série de sections correspondant à différentes étapes du processus de résolution de problèmes, à savoir, la compilation de données, la consultation, la prise de décision. Chaque section offre plusieurs alternatives d'action dont la réponse n'apparaît qu'au moment où l'une d'elles est choisie. Il n'existe pas de solution exacte unique mais bien une voie optimale comparativement à d'autres qui le sont moins. Tout est fait pour rendre les descriptions de problèmes et les dossiers des malades aussi réalistes que possible.

Les étudiant(e)s ont estimé que les trois simulations écrites utilisées pour enseigner le contenu théorique constituent un bon départ pour appliquer la théorie de façon réaliste. Leurs décisions ont été suivies d'une rétroaction immédiate, sans s'accompagner de toutes les appréhensions ressenties devant une situation réelle impliquant un malade. Il est possible d'analyser la méthode dont se sert l'étudiant(e) pour résoudre les problèmes et l'aider ainsi à découvrir ses points forts et points faibles, par exemple, son comportement habituel en matière d'évaluation du client ou sa façon de prendre des décisions à partir de renseignements inadéquats.

"POR": La solution du professeur en nursing au "dossier de la famille"

Le concept d'"étude longitudinale de la famille" se retrouve dans tous les cours de nursing en santé communautaire inscrits aux programmes de baccalauréat au Canada. Cet article montre l'adaptation, dans le cadre de situations cliniques au baccalauréat, de la méthode appelée "Régistre pour l'identification de problèmes et de leur solu-

tion (Problem Oriented Recording)". Cette adaptation à l'étude de familles avait pour but de favoriser une meilleure surveillance de la part des professeurs et de faciliter l'apprentsisage d'un groupe d'étudiants.

L'article décrit la méthode "POR" du Dr. L. Weed en la comparant au processus de nursing. Pour que cette méthode réponde mieux aux besoins spécifiques d'apprentissage des étudiants on lui a apporté certaines modifications. Il s'agit de dispositions visant à souligner tant les aspects positifs que les "problèmes" de la famille, de l'inclusion d'un aperçu théorique et d'une logique interne et d'une concentration sur les habiletés en relations interpersonnelles des étudiants.

Professeurs et étudiants se sont déclarés très satisfaits de cette méthode de registre, surtout après l'avoir comparé au système antérieur de compte-rendu narratif. L'article donne l'exemple de la mise en application de la méthode "POR" à la relation étudiant-famille. Il fait également état d'une recherche réalisée sur l'utilisation du POR par des étudiants en milieu hospitalier et conclut qu'il serait intéressant d'entreprendre un travail similaire à l'égard de l'étude longitudinale de la famille.

TOWARDS UNDERSTANDING NURSING PROBLEMS IN CARE OF THE HOSPITALIZED ELDERLY

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This article is based on a paper presented by Dr. Wells at the Canadian Association of University Schools of Nursing Annual Meeting, June 3, 1976 at Laval University.

In September 1972 a three year nursing research project began in the Department of Geriatric Medicine at the University of Manchester, England. The study explored geriatric nursing by describing current nursing practice in the care of old people, documenting its constraints, and seeking relevant concepts for the development of a potential model for geriatric nursing. The process of nursing the elderly in one large hospital in northern England was studied to gather data from which implications for improving care to the hospitalized elderly arose. The research progressed through a series of questions:

What constraints to geriatric nursing practice exist within the hospital setting?

What do nurses know about care of the elderly?

How do nurses in geriatric wards describe the hospitalized elderly?

What do nurses in geriatric wards feel toward old people?

What is the work of nurses in geriatric wards? and,

What verbal communication occurs between nurses and patients on these wards?

The total research consisted of eight systematic, progressive, and interrelated studies of nursing experience.

The first study dealt with the utilization of space in geriatric wards, because it seemed logical that nurses' work and general attitudes would be influenced by the enclosed space that surrounds them. Some aspects of space influencing work would seem apparent, such as the effect of long, narrow wards on nursing practice. In such settings nurses would have long distances to travel, but a limited area in which to work. Walking time and crowded space could foster task assignment and a fixed ward routine rather than individual patient care.

There would probably be other subtle influences on practice, for example, if patient toilets were at a distance from the main care area. It has been estimated that elderly, continent, ambulant people can travel only 40 feet between the time of urge to void and voiding. Nurses on wards with distant toilets might first attempt to take patients to the toilet only to discover that the patients were frequently incontinent on the way or fell. The nurses might then discourage toilet visiting even for those patients who were closer and could get there safely. Worse still, they might not provide a suitable alternative. Distant toilets could breed a custodial atmosphere. The message to the nurse would be that it was impossible for the patient to get to the toilet, therefore, it was impossible for him to do anything else. While these examples may not fit the space problems in all settings, they serve to illustrate that space can shape nurse work patterns and subtly influence judgments.

In the wards studied there were serious space utilization problems. All the wards had critical shortages in toilets, bath and dayroom areas, as well as severe limitations in storage and nurse work space. One building, housing 80 patients, was unacceptable for patient care.

These findings meant that nursing care was taking place in trying or impossible environments. For example, it did not seem likely that patients' right to privacy would be supported when there was a general lack of single rooms and even individual bed curtaining! Further, renovation schemes appeared to address only the most primitive and visible of problems. Gross errors in planning and ignorance of space use with the aged were repeated and repeated.

Yet no ward sister/charge nurse actually knew the dimensions of her ward areas or how her ward stood in relation to the minimum standards operating for hospital space use in England. None of them had documented patient difficulties related to structural problems. They knew the general inadequacies but lacked the knowledge and will to address the space use issue. It was as if they felt that the nurses' role was to bend or force care of the elderly into the setting provided rather than to alter the setting, even in a marginal way, to facilitate such care.

Further to studying the environment in which nursing care of the elderly took place, the quantity and quality of furniture and equipment in geriatric wards was surveyed. Equipment and furniture needs for the elderly are complex. Nursing education does not include explicit instruction on these matters. This lack is displayed in nursing equipment vocabulary which indicates a generalizing rather

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than specifying pattern. For example, the word "bedpan" is used frequently as if there were only one, yet most hospitals have a range of four to five quite different bedpans. Since nursing vocabulary does not distinguish them, it seems likely that neither does nursing practice.

In the wards studied, furniture and equipment for the elderly were usually insufficient, inadequate and substandard. Poor equipment meant that nurses could not utilize it as an aid to nursing. Instead, care took place in spite of poor furnishings. Because nurses have not been taught about equipment and may often work with poor examples, they often are unaware of how appropriate eqjuipment can help. It would appear that nurses do not know how to really use the good tools for care that they have or how to explain accurately what is wrong with the poor tools with which they struggle.

Another issue in care of the elderly in England is personalized clothing for elderly patients, an example of a progressive change imposed upon nursing. Formerly institutions provided wards with standard issue nightwear and, depending on the type of institution, standard issue daywear also. Clothing was easily recognized as the hospital's and frequently had visible markings declaring such ownership. Patients' garments were not selected necessarily for appropriate size or particular needs and when soiled were returned to the main supply for cleaning and re-issue probably to another patient. The new, "personalized" approach meant that garments should be issued individually by size, need and patient preference. They should be marked with the patient's name, be stored near him, and be worn only by him. Emphasis should be on normality and individual choice.

The concept of personalized clothing for the institutionalized elderly in Britain is generally well-accepted and various hospital clothing programs exist. One was said to exist in the setting studied. However, it was an informal and unplanned program. While patients appeared to be suitably clothed, closer inspection revealed that this was mostly decorative and sometimes not even rational. As examples, few patients wore underpants; their preference in clothing was not paramount; they were usually dressed by attendants; they frequently wore day clothes over night clothes. The use of clothing for therapeutic aims, such as relearning dressing skills or encouraging normality, was not evident.

A subtle assumption had been made that nurses would know how to use clothing in the care of old people, and that they would have

time to do so. Yet nowhere did the nurse receive education in techniques for dressing the handicapped or for teaching such skills to the elderly.

A basic question within the first year of study was: "What do nurses know about care of the elderly?" An open-ended questionnaire about nursing problems in geriatrics was developed and administered to a small, self-selected sample of trained staff and a small, stratified sample of untrained staff.

The untrained staff, the most numerous care givers for the hospitalized old, had little or no idea of the cause and care of common problems in the elderly.. For example, when asked to give reasons as to the cause of a patient problem there was a tendency to resort to a description of the problem, e.g., the cause of bowel problems was "constipation". Other comments were vague, such as giving "old thinking" as a reason for confusion. Social-psychological causes sometimes suggested judgments, or a failure to appreciate the emotional aspects of aging. For example, "laziness" and being "child-like" were noted in answers about about both urinary incontinence and eating difficulties.

The knowledge of trained staff tended to be global, vague, inadequate and confused. It was rare to find any accurate mention of the normal aging process. Commonly, answers which mentioned age were simple, imprecise statements such as for bowel problems, "body gets slow with age" and for confusion, "increasing with an aged body." While the range of responses under physical care was usually broad, they did not always include the most helpful techniques. No one noted the well-publicized English pressure sore assessment chart developed by Norton and colleagues 10 years before this study. Further, some suggestions for helping with patient problems caused concern. For example, restricting fluids before bedtime to reduce incontinence in the elderly is a debateable practice. The hospitalized old commonly are put to bed at 5 p.m. and may not receive an adequate fluid intake during the time they have free access to fluids.

The knowledge of nursing staff about specific care problems becomes extremely important when that same staff are asked to describe their patient population. In the geriatric wards as a whole, the nurses described the greatest patient need as putting on and taking off clothing; 50 per cent of the patients needed total dressing. The next extensive problem was incontinence, with 76 per cent of all patients described as having some degree of urine control difficulty. Almost a quarter of those were said to be always doubly incontinent.

Third in significance was activity. Only 21 per cent of the patients were described as ambulant; the majority were in chairs. Further, 20 per cent of the patients could not feed themselves and almost a quarter were always mentally confused.

The nurses' attitudes toward old people were explored in a small trained staff sample, using open-ended questions and the Kogan Old People Scale. These nurses held mostly positive attitudes towards old people and demonstrated such themes as desire to be depended on, altruism, and martyrdom as the reasons for choosing to work with this age group. The nursing sample crystallized their difficulties as "shortage of staff" and expressed frustration and anger over what appeared to them to be overwhelming problems in nursing care.

With all this background, what do nurses do in geriatric wards? Using an activity sampling method, nursing staff on four specially selected geriatric wards were studied. The greatest amount of nursing work observed was direct patient care, such as feeding patients and making them comfortable. However, the single most frequent activity of the 130 observed was Personal Time. This was a global classification for a number of relaxing or personal behaviors, such as reading a newspaper or going to the toilet. It was used only if a nurse behavior was unquestionably personal. When this activity was combined with other rest and relaxation aspects the percentage exceeded the suggested norm, which was 12.5 per cent of nurse time.

Considering this category more closely, Personal Time was more frequent and occupied more of the nurses' time in the hourly "worst" staffed wards. That is, nurses were more likely to engage in relaxing behavior such as having a social conversation with a colleague or an unofficial cup of tea when the ward was poorly staffed. Although this is an interpretation based on a retrospective view of a small sample, it would seem that the greater the pressure or stress of work, the greater the need for Personal Time behaviour.

The data from the nursing work study revealed that while nursing tasks randomly varied, the bulk of activity seemed to follow regular routines. The work routines were based on minimal universal needs such as meals, "getting up" and "putting to bed". Work was not organized, in the sense that it was not assigned by individual patient or specific task, except in obvious trained/untrained distinctions such as medicine administration and certain ward management work. However, during evening and night shifts even these few distinctions were not evident. Work progressed by area of the ward and time

of day. That is, nurses accomplished the routine demanded by the time of day, e.g., "getting up", from one end of the ward to the other.

The impression was of frantic, intense activity by nurses working in pairs or groups of three to complete the routine as quickly as possible. Individual patient preference or even necessary variation in care appeared to be obstructive to the goal, which was completion of the routine. These frantic, intensive periods of activity with patients were followed by slower paced work away from patients, such as making unoccupied beds or making sandwiches for patient meals.

The nurse work routines might originally have been designed to complete large amounts of work with inadequate staff numbers. However, these nursing routines appeared to have become irrational expenditures of enormous amounts of energy. For example, what did the rapid undressing of all the patients and putting them to bed before 5 p.m. have to do with patient care? Might it have been more sensible, and surely no greater effort, to base patients' "going to bed" time on their individual needs, preference and abilities? Yet there was an unwritten ethic that "day work" had to be completed before night staff came on duty, although this study discovered that night nurse work was minimal.

It certainly did seem as if nurse work was not sensibly organized, that nurses made work for themselves, undid each other's work, and worked against effective, or even logical, nursing care.

The most worrying of all the aspects of nursing observed was the nurse-patient verbal interaction which had been overheard. Nurse communication to patients appeared to consist of either a directive, a joking remark, or a playful session of questionable purpose. Since subjective and selective listening could have created a false impression, it became vitally important to correct or verify these impressions. Further, nurse-patient verbal communication is a visible sign of the nurse-patient relationship, the dynamics of which are thought to be fundamental to the delivery of nursing care. Thus, the final research year was spent in studying nurse-patient sustained verbal communication in a positive but average setting with a cross-section of nurses and with patients who were likely to exchange verbal communication.

Sustained verbal communication was defined as a verbal interchange between nurse and patient which lasted 25 seconds or longer with less than a minute break in transmission. On this basis it was found that nurses infrequently talked to patients and that, when they did talk to patients, they were more concerned about tasks and things

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than they were about the patient as a person with feelings and thoughts. If nurse-patient verbal communication reflects the nurse-patient relationship then this was probably as limited as the conversations heard and not very meaningful.

After this three year study of geriatric nursing, what could the researcher conclude? Nurses in geriatric wards worked very hard and were well meaning. However, they worked very hard at and were well meaning about the wrong things. These nurses were products of a training system that taught them a series of tasks and neglected to provide adequate information about caring for the elderly. The central problem in geriatric nursing is the central problem in all nursing: nurses do not know why they do what they do. It is not helpful to anyone if nurses base their work on principles of trial and error, custom, and habit. Training has encouraged nurses to form ritualistic routines without thinking of the effect of such routines on patient care.

Effective and meaningful nursing care of the elderly is most likely to rest on a solid knowledge of the normal aging processes, on dynamic nurse-patient relationships, and on problem solving and research skills focused on outcomes to patient care. Perhaps more important than changes in curriculum for nurse learners are changes in knowledge states for nurse educators.

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A COMPARISON OF TWO TYPES OF LEARNING EXPERIENCE IN A SECOND YEAR NURSING COURSE

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Nursing educators' interest in improving education has generated some innovative attempts in planning and implementing instructional methods in schools of nursing. Concerns about instructional strategies should remain central to curriculum development, implementation, and/or change. These concerns are directed toward what instructional methods to use, when to use them and how effective and efficient they are in the teaching-learning process. The first two aspects (what and when) might not be hard to pursue because there are a number of resources available for educators to review and utilize. In nursing education, however, evaluation of instructional methods as to effectiveness and efficiency is at a beginning level.

In most schools of nursing the evaluation process has been traditional in that it has emphasized the products of learning rather than the process of learning. The focus has been on how much students have learned as determined by their scores on appropriate paper-pencil tests.

Evaluation as broadly defined by Cronbach (1968) is the collection and use of information to make decisions about an instructional program. The program may be a set of instructional materials, instructional activities, or the educational experiences of a student. He established three types of decisions for which evaluation could be used. The one most relevant to this study is an evaluation for the purpose of course improvement, i.e., effectiveness and efficiency of materials and methods used for teaching purposes.

PROBLEM

At McMaster University School of Nursing, at the end of the student's second year in the program, a separate (Term III) six

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week period was implemented. During this time the teaching and learning of nursing concepts related to those patients with impaired sensory and motor functions had been taught in two courses. These two courses were listed in the calendar as "Concepts of Illness I" and "Science III."

"Concepts of Illness I" is made up of a core nursing class and actual clinical practice. "Science III" is neuro-anatomy and neuro-physiology. In this paper, the former will be referred to as "clinical nursing" and the latter as "neuroscience."

The simulated patient as described by Barrows (1971) had been the method of instruction primarily used for both courses. However its effectiveness had not been evaluated in relation to other instructional methods in terms of the human, money and clinical resources required.

PURPOSES OF THE STUDY

The purposes of this investigative study were to determine:

1. If there were differences in learning outcomes when simulated patients versus paper problems were used as instructional methods.

2. Whether the gains students made in neurosciences and clinical nursing justify the special resources and effort on the part of students and faculty.

3. The validity of methods used to evaluate students with regards to Term III objectives.

4. Whether non-expert tutors impede student learning of neuroscience.

A post-hoc purpose (not in the original scheme) was to determine if there was a difference in the amount learned when the student was placed in an acute versus a chronic setting.

DEFINITION OF TERMS

For the purpose of this study the following terms were defined:

1. Simulated patient — An individual programmed to simulate an illness.
2. Paper problem — Paper and pencil simulations of illness.
3. Non-expert tutor — A nursing instructor whose area of expertise is other than neuroscience.
4. Learning outcomes — Attainment of knowledge, skills and attitudes related to the objectives for neuroscience and clinical nursing.

METHODOLOGY

The sample consisted of sixty-three second year nursing students at McMaster University.

A pretest was administered at the beginning of the course.

Using pretest scores, dyads were formed. Each dyad consisted of a student with a high score and a student with a low score. These dyads were then assigned to Group I (P_1), or Group II (P_2). In P_1 N = 32. In P_2 N = 31.

The instructional methods used for Group I (P_1) were:

1. Simulated patients followed by small group tutorials for neuroscience.
2. Simulated patients for clinical nursing classes.

For Group II (P_2) the instructional methods used were:

1. Simulated patients followed by small group tutorials for neuroscience.
2. Paper problems for clinical nursing classes.

A post-test was administered to both groups at the end of Term III.

Scores on the pretest — post-test and final marks (grades) received by the students in neuroscience and clinical nursing were used to measure learning outcomes. Scores on the pretest — post-test were used to measure student gains.

PRETEST-POST-TEST

1. *The Neuroscience Test* consisted of 100 multiple choice items selected on the basis of the course objectives. There were 100 items on both the pretest and post-test. Content validity was established by having the test items reviewed by individuals with expertise in neuroscience. The completed forms of the test were also reviewed by individuals with expertise in measurement and evaluation. To date the reliability of the test has not been determined.

2. *The Nursing Test* used had been designed by the Faculty of the School of Nursing, University of California, San Francisco.* This test presented the students with a description of a clinical problem arranged in its successive stages. The student was given information of the type usually available to a nurse and a list of actions she might take. These actions included data gathering, patient care, communication, environmental management, professional referrals and recording of data. Alternative choices of action were available. When the student had made a decision among the alternatives she indicated her choice; she then received immediate feedback on the consequences of the choice. Five scoring systems had been developed for the test. Three of the systems assessed the degree to which the student selected nursing actions correctly and efficiently. Another system

*Permission was received to use the test from Karen Clause, University of California.

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TABLE 1
COMPARISON OF MEANS IN PERCENTAGES BETWEEN GRADES RECEIVED AND POST-TEST SCORES FOR THE TWO GROUPS

	P_1	P_2	t
Neuroscience			
Post-test	57.7*	54.6	1.38 n.s.
Grades	78.1	76.0	1.30 n.s.
Clinical Nursing			
Post-test	68.4	69.3	.36 n.s.
Grades	70.6	72.9	1.38 n.s.

*Mean score differs from Table 4 as all scores were included here; in Table 2 only paired data was usable.

categorized the items into simple, common and complex levels of decision making. Another assessed the outcome of decisions in relation to the value and risk involved. The fifth scoring system assessed the quality of clinical judgment. The reliability and validity of the scoring system, as reported by the developers, had been checked for test/retest reliability, reliability of scoring in free response sections and content validity. Content validity of the test was established by nursing and medical experts, current nursing and medical literature.

DERIVATION OF FINAL MARKS

Final marks in neuroscience were determined by adding a group mark and an individual mark. The group mark was based on group growth as described by Dimock (1972). The individual mark was based on a written assignment which assessed content, knowledge and the ability to apply this knowledge to neurological problems.

Final marks for clinical nursing were determined by rating the student's performance in the clinical settings. A clinical evaluation form* which had been adapted for Term III was used for student ratings. The behaviours upon which the students were rated to the terminal objectives for the B.Sc.N. program.

RESULTS AND DISCUSSION

As shown in Table 1 there was no significant difference in learning outcomes between the two groups P_1 and P_2 as measured either by the post-test scores or by final marks.

The difference between the two groups was that one group had simulated patients while the other had paper problems in their *clinical nursing* classes. This treatment did not make any difference to

*These forms were developed by the undergraduate nursing faculty at McMaster and are used throughout the four years.

TABLE 2

CORRELATION BETWEEN GRADES RECEIVED AND SCORES
ON POST-TESTS FOR CLINICAL AND SCIENCE COMPONENTS

	Post-test in Clinical Nursing	Science GRADE*
Clinical GRADE	$r = .23$	$r = .51$
Post-test in Neuroscience	$r = .09$	$r = .15$

TABLE 3

SCIENCE GRADE*

"Individual" component of Mark
vs.
"Group" assigned component $\Big\} r = .03$

the amount learned by the two groups. However, since both of the groups were exposed to simulated patients in their *neuroscience* classes, the "no difference" observed should not be used as concrete evidence as to the effectiveness of simulated patient versus paper problems as teaching devices.

Table 1 also shows a close correspondence between the post-test scores and final marks in clinical nursing, but there is a disparity of approximately 20 points on the post-test scores and final marks in neuroscience. We might attribute this to the fact that on the neuroscience component, the the post-test questions may have been too difficult or the grading system for the neuroscience course was too liberal. However, the slight differences that do exist between P_1 and P_2, as reflected both in the test scores and the grades, are in the same direction.

In spite of the close means on the clinical component between post-test score and final marks received, the coefficient of correlation as shown in Table 2 is quite low ($r=.23$). The two instruments measuring the same student gave different results. Either one of the tests is unreliable or they are measuring different things. The relationship between the scores on the neuro post-test and the science grade is even lower ($r=.15$). Here again, one must suspect that different things are being measured.

When final marks in neuroscience and clinical nursing are compared, the coefficient of correlation is .09. This may suggest that the

TABLE 4
COMPARISON OF PRE AND POST-TEST SCORES IN
NEUROSCIENCE AND CLINICAL NURSING

		Mean Scores in Percentages Pre-test	Post-test	Gain	t	Level of significance
Neuroscience	P_1	40.6	59.2	18.6	10.35	.0001
	P_2	40.3	54.4	14.1	10.45	.0001
Clinical	P_1	62.2	68.4	6.2	4.56	.001
Nursing	P_2	60.1	69.3	9.2	5.39	.001

initial post-test results were unreliable, but probably reflects the differences of what was being measured. This may be more desirable than scores which are highly correlated.

The disparity between $r=.51$ (within grades) and $r=.09$ (within tests) may be due to the fact that in assigning the grades, content and clinical application were less well segregated than they were in the post-test used for neuroscience and clinical nursing.

Table 3 shows that when the components of the science grades are compared on the same students, the coefficient of correlation is almost "0". In this instance since both components were supposed to measure learning outcomes in neuroscience the lack of a relationship is of concern and may in part explain the 20 point difference between the mean neuroscience grades and the mean test scores in Table I. Such a low coefficient of correlation suggests that the validity of the two methods used for measuring learning outcomes in neuroscience needs further exploration.

The study indicated that significant learning gains occurred in both neuroscience and clinical nursing (Table 4). Identical tests were used for pre and post measures so that some of this gain may have been due to familiarity with the tests. However, the six week time period between pre and post-testing would likely have limited this familiarity.

There were greater learning gains made in neuroscience than in clinical nursing. This leads to the question of whether *all* learning gains in clinical nursing were measured by the California nursing test. However, if the clinical nursing test did measure all the learning gains, one must question the value of providing such an extensive experience for a limited amount of achievement in clinical nursing.

The question, then, is whether the effort expended by faculty and students during the six weeks of Term III is justifiable in terms of gains. Since we lack any comparison data — measures of comparable gains given a different type of effort (programme) — this question

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FIGURE 1
AVERAGE GAIN IN PERCENTAGES PER GROUP
FROM PRE TO POST-TEST
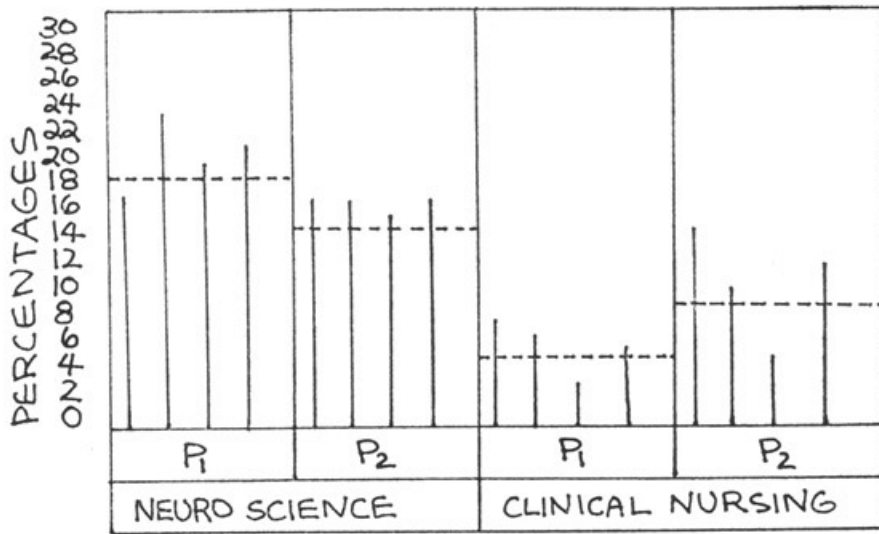
cannot be answered here on experimental grounds. Therefore, it is left to the judgment of the curriculum planners to decide whether the gains justify the resources required and the amount of effort expended.

A related question to benefits derived has been the concept of expert versus non-expert tutors. The question in the minds of faculty had been whether teachers whose expertise is outside of neurosciences can be effective facilitators in the learning of neuroscience by students. When questioned all tutors said they were non-expert in Neurosciences yet if one looks at Figure 1, one notes that in fact all groups gained more from pre to post-test in the sciences than in clinical nursing.

A question not originally asked but analyzed post-hoc was whether the setting in which the students were placed affected the outcomes.

Table 5 shows that according to the post-test score, it made no difference whether the students were in "chronic" or "acute" settings.

This "no difference" is to be taken with caution as the settings were not purely chronic or acute and often an acute case turns into chronic and vice versa.

SUMMARY AND CONCLUSIONS

Two types of learning experience for students in a second year nursing course were compared. Analysis of data suggests that the learning outcomes and students gains for both groups were similar.

The lack of ability to reach any conclusions regarding the differential effectiveness of simulated patients versus paper problems in

TABLE 5

COMPARISON OF SCORES FOR "CHRONIC" vs "ACUTE" GROUPS

Mean Combined Scores
(Clinical & Neuroscience Nursing)

	Acute	Chronic	t	Sig.
P_1	62.	62.		n.s.
P_2	60.4	62.9	.98	n.s.
$P_1 + P_2$	62.08	62.80	.47	n.s.

the teaching of Term III was due to the contamination of the treatment variables. It is suggested that if this question remains of interest, then the experiment should be repeated with care given to the segregation of treatment variables.

With regards to total benefits derived from Term III, it was suggested in the discussion section that this must be a subjective decision of the Faculty. If experimental support data is desired, we would suggest that alternate means of conveying the content and process information be instituted thus allowing for comparison of benefits derived.

The information obtained from the correlational analyses leads us to believe that in order to ensure a greater degree of validity of grades (that is, that the grades will truly reflect the students' abilities) multiple means of examining the students should continue. However care should be given to recognize which components are examined by which means, thereby assuring that the multiple measures reflect the multiple facets of learning outcomes.

Cumulative grades will then become a more valid representation of the students' ability.

The fact that student gains in neuroscience were not affected by how the tutors perceived their expertise is reassuring. It also leads one to question whether student gains would be the same whether "expert" tutors, non-expert tutors, or self instructional materials were utilized.

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AN EXPERIENCE DEVELOPING AND USING WRITTEN SIMULATIONS AS A METHOD OF TEACHING

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NATURE AND USE OF WRITTEN SIMULATIONS

The characteristic feature of a written simulation of a clinical nursing problem is that it focuses on the student's ability to problem solve. This method presents the problem solver with a short written description of a situation and then enables him/her to work through the problem on paper by presenting a number of sections which correspond to steps in problem solving. Some of these sections are for the purpose of deciding on broad strategies, e.g., gather data, seek consultation, or take action. Other sections present and enable the selection of data or specific nursing actions.

In each section of the problem, a number of options are available among which the problem solver makes a choice. They are accompanied by responses which are not visible until a particular option is selected. The response to each option may contain information that is requested, the results of the action chosen in the option, or directions as to how to proceed through the problem.

This technique provides a great deal of flexibility, in that branching among sections allows problem solvers to take a number of different routes. There is no one right or wrong path, but an optimal route, on a continuum with less than optimal ways of solving the problem. Thus, a more realistic type of problem solving situation is offered in comparison to programmed instruction or multiple-choice tests. In every possible way an effort is made to offer the student a situation which is realistic in the actual problematic situation presented, the context of the problem, responses to options, and patient records.

The accompanying example (pp. 24-25) illustrates the structure of a written simulation. Other media may also be incorporated, e.g., an audio-tape as a patient response, a video-tape to present the initial situation.

Written simulations may be used in formative evaluation, summative evaluation, or as a method of teaching. The character of the simulation is modified depending on the purpose for which it is intended. If it is to be used in independent learning, a good deal of

reinforcement and feedback is given in the responses. When it is designed for the purpose of evaluation, options are scored to allow quantitative measurements to be made and feedback in the responses is kept to a minimum.

A few nursing educators have described the ways in which they have used written simulations. De Tornyay (1968) designed a simulation in order to test the use of factual knowledge in problem solving. McIntyre *et al.* (1972) used the written simulation method as a research tool in examining the influence their curriculum, which stresses problem solving and decision-making, had had on the problem solving abilities of their students. Curtis and Rothert (1972) developed a written simulation to give students practice in nursing assessment.

DEVELOPMENT OF THE METHOD

Dr. Christine McGuire and her staff at the Center for Educational Development, University of Illinois College of Medicine, have done extensive work in designing written simulations (1967). It was through this Center that Dr. Nora Parker of our faculty became acquainted with written simulations. Subsequently, there was enough interest two years ago in this structure to have a resource person come from the Center to our faculty and conduct a four-day workshop. At that time it became apparent that for the novice the development of a problem into a simulation was a complex and demanding task. A few staff, myself among them, were quite intrigued with this simulation method and have continued developing their problems.

PROBLEM SITUATIONS IDENTIFIED

In my teaching experience, I have usually found methods which pose a realistic situation, such as case studies, one of the most exciting methods of teaching theoretical material. Consequently, the possibilities of written simulations fascinated me. This has kept my motivation high for working through the difficulties facing a beginning developer of simulated problems.

I recorded basic details of situations in the clinical setting that might be suitable for later development into written simulations. The types of events recorded were those which seemed to pose conscious problematic situations to myself, students, or other nursing personnel. Most of these situations were specific to patient care problems, such as the following: (a) finding a patient was taking unordered Codeine tablets from a supply he had brought from home; (b) finding an elderly patient with a number of health problems trying to turn over to rest on his hands and knees in bed — his oxygen mask hanging

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down around his neck; (c) discovering that a patient on a fluid restriction of 800 ml. per day was confused about the amount of the restriction, had had great difficulty learning how to measure fluids, but was to be discharged in two days. Problems which involved a great deal of non-verbal data, e.g., identifying anxiety, had been found difficult to develop during the workshop and therefore were not recorded.

USE OF THREE WRITTEN SIMULATIONS

Over the last two years I have developed three situations into written simulations and have used them in teaching theoretical material to second and third year basic students.

During the first year, technical problems were a great impediment because many methods for keeping the responses to options out of sight initially were found to be either too expensive or too time consuming to prepare. Those methods finally selected remained extremely time consuming in preparation and seemed unrealistic to be used more than once with ten students.

It was decided that use of the latent image duplicator was the only method which seemed feasible in terms of time and expense. Responses duplicated by this method remain invisible until they are rubbed over with a special pencil. With access to this equipment I was able to use two of the simulations with a group of sixty students.

Since the simulations were not designed as independent learning tools and there was not a lot of feedback built into the simulation responses, after students worked through each simulation in class their different approaches and rationale for solving the problems were analyzed in group discussion. As well, information was solicited from the students as to confusing aspects of simulation structure, realism and completeness of options and responses, and the advantages and disadvantages they found in the use of the simulations as learning tools.

STUDENT RESPONSE

Most students were very enthusiastic about the written simulations and suggested that more be available. They thought that the primary advantages were that (a) it made the content area studied more real, (b) it gave a better idea of the important information to be learned, (c) problem solving and decision making were involved in addition to factual knowledge, (d) they received immediate feedback about their decisions, and (e) there was less anxiety than in a real patient situation. They were free to make decisions and see the effects without the patient suffering from poor decisions. This last

advantage supports De Tornyay's recommendation for the use of written simulations as teaching aids.

In relation to these advantages, students commented that working through the simulations and discussing them was an interesting way to begin to apply theory in a realistic manner. It made them realize the importance of planning their decisions and gave them a better understanding of how to set priorities. They could see how goal-directed problem solving led to a better solution than non-directed efforts. This learning could be done within a non-pressured atmosphere which students felt was good for building confidence.

Students identified as disadvantages the cost of the simulations and the time required to work through and discuss them. Some students also felt confined by having a limited number of courses of action available. As well, a number of students said that when doing their first simulation they did not take it very seriously or think carefully about their decisions until they found something grossly abnormal about the patient as a result of their choices.

TEACHER ASSESSMENT

From the teaching viewpoint, I think the simulations provided an excellent basis for analyzing various approaches in the application of factual material. They were particularly helpful in assisting students to selectively identify in different situations such things as what should be assessed about a patient, what information was most appropriately gained from patient records, and when it seemed appropriate to consult with other personnel. As an example, the patients in two simulations had an abnormal radial pulse. Contrast could be made between the two situations as to what further assessment and/ or action was indicated when one patient was found to have a radial pulse rate of 40 per minute with a regular rhythm, as compared to the other patient who was found on assessment to have a radial pulse rate of 80 per minute with the irregularly irregular rhythm characteristic of his previously diagnosed atrial fibrillation.

The simulations provided a common patient situation in which initially all students had the same objective informative information. In analyzing each student's choices throughout the problem, it was found that short verbal or written comments might be a very effective individual feedback mechanism to help the student identify areas of strengths and weaknesses. Some weak areas which seemed to emerge were ritualistic aspects of patient assessment, use of extraneous information, poor theoretical knowledge, and taking action on the basis of inadequate information. This feedback would seem particularly useful if the simulations were used for formative evaluation.

MODEL OF AN OPENING STATEMENT AND TWO SECTIONS IN A HYPOTHETICAL WRITTEN SIMULATION

You are a second-year nursing student having clinical experience in a University teaching hospital. Your student group is to report to the medical ward at 8 a.m., just after the night report has been given. On the morning of March 16, 1976, you are assigned to care for Mr. Anthony. Your instructor tells you that your patient is 70 years old and has a diagnosis of thrombophlebitis. He is in Room 410. This is the first time you will have had any contact with Mr. Anthony, and you have not seen his Kardex or chart. *Now continue with Section A.*

SECTION A

You would NOW (Choose ONLY ONE of the following items, unless otherwise directed in a response):

OPTIONS	RESPONSES (These are not visible until the student selects the corresponding option).
A01 Go to Mr. Anthony's Room.	A01 You find Mr. Anthony lying in bed with his head elevated about 30 degrees. He has an I.V. running into his right forearm. He greets you with a smile, says he had a restful night, and is just waiting for breakfast. *Go to Section E.*
A02 Look at Mr. Anthony's Kardex.	A02 *Go to Section I.*
A03 Look at Mr. Anthony's Chart.	A03 *Go to Section H.*
A04 Begin gathering supplies for morning care.	A04 This is accomplished in 10 mins. *Now make another choice in this section.*

Certainly the time needed to develop, have reviewed, revise, and test out written simulations is quite lengthy and is the major disadvantage from my point of view. With increased practice, it is hoped that the time needed will be greatly reduced.

I would not see using written simulations as a substitute for actual clinical experience because of the limitations of the structure in the amount of stimuli which can be incorporated, the restricted number of options to action which can be offered, and the fact that problem solving under situational stress cannot be simulated. I do think that they offer an excellent way of helping students think through the process they use in applying theory.

SECTION E

You would NOW (Select AS MANY as you consider indicated AT THIS TIME):

E01	Get a thermometer and take his temperature.	101	36.8°C. orally.
E02	Get equipment and take his blood pressure.	E02	128/80 mm. Hg.
E03	Take his radial pulse.	E03	48/min.; irregularly irregular rhythm. Pulse volume varies between strong and weak.
E04	Take his apical pulse.	E04	64/min.; irregularly irregular rhythm.
E05	Take his respirations.	E05	16/ min; regular rhythm no objective dyspnea.
E06	Look at contents, volume, and rate of I.V.	E06	Dextrose 5% in water running at 55 cc. per hour. 200 cc. left in bag.
E07	Look at I.V. site.	E07	Taped securely in place. No unusual contours or discoloration.
E08	Examine his legs.	E08	Muscular and hairy. Appear equal in size. No discoloration. Right leg lying on a pillow. Complains of tenderness when right calf touched.
E09	Ask him to turn over and examine his back and coccyx.	E09	Skin smooth. Slight redness over coccyx.
E10	Ask him when he last had a bowel movement.	E10	He says he had one yesterday.
E11	Ask him about subjective feelings of dizziness.	E11	He says he feels fine.
E12	Ask him about subjective feelings of pain.	E12	He says he only has slight discomfort in his right calf.

Unless otherwise directed, proceed to Section F.

FUTURE WORK

As well as planning to develop more simulations, I am continuing to revise the three which have been used. Each time students have used the simulations, very valuable information has been gained for refining them. As well as revising content and structure, any suggested scoring scheme can be assessed by analyzing the different routes students take through the simulations.

I have yet to find a good enough fit between initial learning objectives and the actual, ripe problematic situations I have recorded for possible development into simulations. Pearson (1975) validly sees this fit as crucial in the future development of a wide variety

of simulation techniques. Perhaps as a volume of pooled recorded situations is built up, this larger number will enable a more discriminating selection to be made. The other alternative is to construct problem situations artificially to fit the learning objectives. While a certain amount of alteration of real events is only practical, I would hope that real events could form the nucleus of most simulations.

Sharing of ideas among those in various schools of nursing who are involved in written simulation construction would be very valuable. Constructing these tools can at times be a most frustrating task, and the discussion of ideas and difficulties among those in our faculty who have continued to pursue written simulation construction has been of great mutual support.

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The search for a means by which to "monitor the longitudinal family study" has led one educator to adopt the following tool. Many of you may have engaged in a similar exploration. What have you found to be alternative solutions to this teaching-learning problem? We would like to hear from you and to publish a variety of ideas around this important concern.-Ed.

Le système "POR" est la réponse que propose un professeur en nursing à la question de savoir "comment contrôler l'étude longitudinale de la famille". Peut-être vous êtes-vous également penchés sur ce problème d'ensignement-apprentissage? Nous aimerions savoir quelles solutions vous y proposez, afin de publier des opinions diverses sur cette question importante.—Ed.

POR: THE NURSE EDUCATOR'S SOLUTION TO THE "FAMILY FILE"

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The changing focus of health care delivery from acute care to community settings has tremendous implications for nursing and nursing education. Nurses must be prepared to move from the structure and specialization of their traditional hospital roles to function more autonomously in more generalized community-based programs. Although diploma programs for nurses are now incorporating some community experience into their two or three year programmes in Canada, the mandate for preparing nurses to function in community health settings continues to lie mainly at the baccalaureate level. Baccalaureate preparation is now generally seen as a minimum requirement for practioners in this field.

Although community health nursing has been integrated in a variety of ways into the baccalaureate programs across Canada, one consistent component of all of these programs is the "longitudinal family study". Throughout their educational preparation students are assigned to one or more families whom they visit regularly during each academic year. The assigned families vary in structure, developmental stage and level of wellness to correspond with student skill, interest and concurrent learning objectives.

Unlike the clinical situation where an instructor is always available for assistance and supervision, the family visiting experience requires students to be relatively autonomous. The task of monitoring student progress to provide supervision and assistance becomes more difficult for the nurse educator. Perhaps the most common tool that has been utilized for this purpose has been the "family file" or "family diary" in which the student maintains an ongoing narrative account of the family visits. This report is regularly submitted to faculty for comments and suggestions and is combined with faculty-student interviews to provide supervision. In the experience of the writer these "diaries" have traditionally been a "bugbear" for both student and faculty. Various ideas for structure and recording have been implemented but inevitably the result has been lengthy narrative accounts of visits in which it is difficult to clearly identify significant family data, student skills, problem identification and intervention. These narratives are great time consumers both for students to record and for faculty to evaluate.

After a trial period of one academic year using problem oriented recording to monitor the longitudinal family study, this author is convinced that a solution to these problems may have been found. Problem oriented recording, or POR as it is abbreviated, is the method introduced by Dr. L. Weed in 1968 which has been rapidly adopted by numerous acute care, community, and educational settings. Basically the system was designed to help organize and standardize medical recording of pertinent data and to provide a framework for the practice of medicine (Weed 1971). The basic components of POR include (1) the acquisition of an adequate data base (2) the identification of patient problems (3) planning and carrying out management for each problem (4) follow-up through the use of numbered and titled progress notes (Weed 1971, Wooley 1974). The application of this recording system to nursing is a logical one as it basically incorporates all the steps of the currently acceptable "steps of nursing" i.e. the nursing process.

The purpose of this article is to illustrate how problem oriented recording has been adapted in one educational setting to the longitudinal family study and how this system basically parallels the steps of the nursing process. The setting discussed is the second year of a baccalaureate programme during which the focus is the child-bearing and child-rearing family. Although there are numerous theories of nursing process, each with its own vocabulary, for the purpose of this article the nursing process as defined by Yura and Walsh (1973) is utilized. To facilitate comparison of the basic steps of POR and nursing process see Figure 1.

NURSING PROCESS	POR
I. *ASSESSMENT* 　(a) Nursing History 　(b) Nursing Diagnosis	I. (a) Data Base 　(b) *S*ubjective Data 　(c) *O*bjective Data 　(d) *A*ssessment - problem 　　　identification
II. *PLANNING* 　(a) Goal Setting 　(b) Possible Nursing Actions	11. *PLAN* 　(a) Goal Setting 　(b) Possible Treatment Plans
III. *IMPLEMENTATION* 　- Nursing action	(c) Treatment, teaching 　Follow-up visits
IV. *EVALUATION*	

Figure 1

The initial steps of both nursing process and POR are concerned with data collection and problem identification. In nursing process this phase is titled "Assessment" and "begins with the nursing history and ends with the nursing diagnosis" (Yura and Walsh: 72). In POR this phase includes the (1) patient history, former patient records, results of physical exam and laboratory values, (2) problem list, (3) progress notes - *S*ubjective, *O*bjective, *A*ssessment.

During initial family contacts the student completes health histories on each family member. These provide a data base from which general family and individual functioning including existing health problems are identified. Health histories are kept at the front of the family file and any new information which is gathered as the student learns more about the family can be added to the basic histories. From this data base the student diagnoses actual or potential problems and these become part of an on-going problem list which remains at the front of the file for continuous reference and updating. The problems are titled and numbered and the date they are identified and the date they are resolved is indicated. Problems retain their original numbering throughout the record to allow for quick and clear reference. Following each family contact a student records each area of concern or identified problem separately, incorporating the basic SOAP format (Subjective Objective Assessment Plan) which Weed utilizes to document progress notes.

Subjective data is data collected from the client which indicates his perception of the problem, how he feels, his "point of view", and his symptoms (Weed 1971:50, 1975). Under subjective data the student records anything the family or individual relates concerning the problem as well as any relevant information the student has solicited from the family through the interviewing process.

Objective data as described by Weed includes any other relevant data about the problem usually obtained by medical examination and laboratory findings. For nursing this step was interpreted as "the nurse's perception of the problem" and includes any other data the student has collected regarding physical or psychosocial status of the client. Recorded here would be physical parameters such as height and weight, results of screening tests, information obtained from other data sources e.g. family physician, verbal and non-verbal behavior of the client, and observed patterns of interaction in the family. At this point, one adaptation to Weed's method is made to meet specific student learning needs. As the student is expected to identify the significance of collected data, through the use of literature and other resources, it is beside or following subjective and objective data that documentation of the normal or possible implications of the discovered data is provided. For example, if the student had been collecting data about the nutritional intake of a newborn infant she would document normal infant nutritional requirements beside the collected data to provide a comparison for her.

The next step as titled by Weed is assessment, which he describes (1975:3) as "the interpretive statement resulting from the combination of the first two statements i.e. subjective and objective data in light of the physician's judgment." The student therefore, after examining the collected subjective and objective data and by utilizing appropriate resources to aid this process, draws specific conclusions and labels the problem. Essentially this step is equivalent to "nursing diagnosis" which is receiving increasing attention in nursing literature. "The nursing diagnosis concludes the assessment phase and indicates that (a) no problem exists which demands intervention or (b) the precise problem would have to be resolved to maintain optimum wellness" (Yura and Walsh:92). The assessment is expected to be succinct and meaningful and at this point should be well validated by data collected in subjective and objective steps, review of the literature and consultation with faculty or others.

As with the next steps of the nursing process, planning and implementation, the student using POR is now ready to move to the action phase of care. "Planning means setting goals. . . designing nursing action to resolve problems and is followed by implementation by which the nurse puts into action these plans" (Yura and Walsh:28). In problem oriented recording this phase is entitled PLAN and is represented by the final letter in SOAP abbreviation. Goal setting and decision making re: action to be taken are included in Weed's definition of PLAN (1975:23). The goal for each problem is to be stated by the student in family centered terms and in

measurable terminal behaviors. Thus the student is to identify an ideal behavioural state for the particular family or client to be arrived at upon completion of her care. Making this goal specific, meaningful and measurable is a high level skill. By the second semester of year two of this program many students were grappling well with this skill, for example, "that Mrs. B. understand the importance of immunization" is much less specific and measurable than "Mrs. B relate the appropriate schedule and rationale for immunization of her child up to twelve months of age".

For the sake of specific student needs, and to make the PLAN step more meaningful to the nursing process this step has been divided into three components, intervention, evaluation and future plans. Intervention includes the specific care given by the student during the particular visit, including support, teaching and counselling. Rationale for the care given must be identified and documented. During evaluation step the student looks at the effectiveness of her intervention by identifying specific client verbal or non-verbal response to that action. The student utilizes the goal established for the problem to assess the effectiveness of the intervention. In future plans the student, on the basis of the preceding two steps, indicates the intervention that will be implemented in relation to the problem in future visits.

For every visit recorded each problem is titled, numbered and recorded separately in this SOAP format. Point form is used but thoroughness is encouraged.

As would be expected, the purposes of using POR for the student are somewhat different than for the independent practitioner. Several other adaptations to this recording system were made quite smoothly to achieve these. Since most of the families selected for the students in year two of the program are "normal healthy" child-bearing families many of the students do not diagnose specific "problems". Nevertheless they are expected to identify developmental tasks or usual areas of concern that these families are coping with during this normal developmental crisis. Since calling these areas "problems" was not always appropriate, Bonkowsky's (1972) category of "Routine Area of Health Supervision" was adopted. Into this category students were asked to classify all minor problems which would be considered within the range of "normal" or "expected", which could be easily handled through counselling and quickly resolved. These included most aspects of growth and development assessed by the student as part of prevention and health promotion, such as nutrition, preparation for labor and delivery, family planning. The area of "Routine Health Supervision" retained a specific number

throughout the record and appeared on the problem list. Each separate area discussed under this broad category was usually lettered e.g. 1(a) Infant Nutrition, 1(b) Normal Growth and Development. If the problem became acute or not easily resolved then it was listed separately on the problem list and considered as a separate problem in recording.

Interpersonal relations and communication is a consistent component maintained throughout the four years of the program. As it seemed important to focus on the application of these developing skills within the family visiting experience another area of concern called the "nurse-client relationship" was adopted. This area was also numbered and appeared on the problem list. Students were expected to periodically document specific client behavior, student feelings and behavior relevant to assess the stage of trust in the student-family relationship. Students then documented specific interviewing techniques or communication skills they were implementing at this phase with the family and attempted to evaluate how effective these skills were. From an instructor's point of view this adaptation of POR was helpful to identify student progress in utilizing effective communication skills and often provided a point for further discussion at interviewing time.

From an instructor's point of view POR was most helpful in facilitating assessment of the student's understanding of the normal childbearing family, depth of understanding of the particular assigned family and utilization of the nursing process. Students were evaluated basically on these criteria.

At the end of two terms, students were asked for their reactions to the use of POR for the family study. Most of their responses were favourable. They reported that initially, it was time consuming to understand and utilize but later it became easy and logical to use. As compared to narrative recording which they had used in the previous year of the programme POR was identified as more meaningful and less time consuming. Specific comments included: "It was more organized". "You knew where to put your information and what was important to record". "It was useful to review the file to plan future visits". "It was good to separate my observations from the family's statements. It made my assessments more accurate". "It flows easier". "In narrative recording everything was mixed up and jumbled. Errors were more easily made."

The impressions of this author of POR seem to support what is being reported in the literature from a variety of educational and

Problem #3: Induction of labour and delivery.

Goal: That Mrs. D. understand what induction of labour means and will state that she is less anxious about the process.

S: Told by a friend that it was "fast and furious"; said she would prefer to let nature take its course; does not know why the doctor is planning to induce her; knows some drug is given to carry out the process; wonders how it will affect the baby.

O: Appears tense and anxious; plans to bring a book along because she feels she won't be able to sleep; appears alert and receptive to instructions given.

A: Anxiety re: planned induction which may decrease her ability to cope possibly due to lack of knowledge re: induction.

P: a) *Intervention*
- Defined induction of labour as the artificial bringing on of labour after viability, i.e., when the baby can survive outside the mother.
- Explained use of syntocinon to stimulate the uterus to contract, i.v. route to be started at 0800 the next day; close monitoring of BP, pulse and fetal heart; control of rate of drug administration depending on her progress; labour sometimes a faster process with induction but response is individual; no effect of drug on baby but baby's response to labour would be closely checked. Fitzpatrick et al. Maternity Nursing, 1971, pp. 440-442).
- Said I did not know specific reason for her induction but reminded her that she was ten days overdue and that doctor must feel that it would be best for her and the baby.

b) *Evaluation*
- Said she understood my explanation of the procedure but still felt uneasy about it.

c) *Future Plan*
- Provide support and explanation to Mrs. D. during the induction.

Next Day

Evaluation - Mrs. D. said she appreciated my coaching; thanked me and said that I would make a good nurse.

Figure 2. Example of POR.

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service settings. At least one attempt has been made to validate similar impressions using formal research methods in an acute care setting (Mitchell and Atwood 1975). It would be interesting to adapt such a project to study the performance of nursing students applying POR in a community and family setting.

The application of problem oriented recording to the longitudinal family study and its relationship to nursing process has been described in some detail. Although philosophy, curriculum and design are unique to each baccalaureate programme in nursing, many of the problems and issues in one setting are shared by others. It is hoped

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that this discussion of one teaching method will be relevant for other nurse educators who continue to face the dilemma of the longitudinal family study and the "family file".

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Graduates will be prepared to incorporate either option within careers in the teaching of nursing or the development and management of nursing service.

Admission requirements

Either a Baccalaureate degree in Nursing comparable to B.Sc.(N) or B.N. from McGill; or a Baccalaureate degree comparable to B.A. or B.Sc. offered at McGill.

Length of program

Two years for those with nursing degrees
Three years for those with non-nursing degrees

Language of study: English

Further information from:

Director, School of Nursing
Master's Program
3506 University Street
Montreal, P.Q. H3A 2A7