A STUDY OF THE INFLUENCE OF INSTRUCTIONAL SIMULATION ON THE NUMBER OF NURSING CARE PLANS

by

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Introduction to the Problem

Increased health needs and the proportionate decrease in the supply of nurses to serve these needs emphasize the importance of improvement, expansion and extension of educational programs and services to both the patient and the nursing personnel according to the Surgeon General's Consultant Group on Nursing. (44) Those involved with public education have been using new teaching methods and concepts which might well be applied to the educational process in nursing.

Instructional simulation is currently a popular teaching method. Although simulation is not new to the educational field, its use with more intensive planning and research has increased. It is now being used in industry by both management and employees, by the military and Civil Defense organizations, in schools and other areas. Nursing education has traditionally used many forms of

simulation such as role playing in teaching nursing arts and clinical nursing. Films, tapes and models are commonly used by nurse faculty.

Educators involved in research on the use of instructional simulation are concerning themselves with the effectiveness of the medium and proper placement of simulation in the instructional situation. Particular interest has been focused on contextual response simulation and academic games. Perhaps these types of simulations could be utilized with effectiveness in nursing.

Statement of the Problem

It has been accepted that planning patient care is a nursing function. A nursing care plan is an assessment of patient needs based on his emotional, social and physical condition as it relates to himself and his surroundings. The plan must be flexible, changing with the progress of the patient and amenable to revision as necessary.

Informal planning has always been done in relation to time requirements, schedules, treatments or medications but more recently additional dimensions and refinements have been used to provide for written individualized plans of patient care. It is not to be inferred that arranging time and

planning schedules are not still involved but that these are now modified and incorporated into the patient's nursing care plan to meet the individual needs of each patient.

Little and Carnevali state that nurses are capable of examining a patient's needs and are ready to do so. (30) Nurses are also capable of varying their approach in a planned way to meet each individual situation. Thus, nurses have made a beginning in the planned care concept. The importance of reducing to writing the plan of care should be recognized by all. Little and Carnevali infer that because the need to plan patient care and communicate these plans in writing is apparent, nurses will follow through and develop written nursing care plans for their patients. (30)

Nursing care plans are not being written in many instances. Although nurses may know how to prepare written plans and recognize the need for written nursing care plans, there seems to be a gap between what is known and what is done. It is agreed that written nursing care plans improve communication and thereby contribute to the continuity of nursing care. Since such plans do not appear to be constructed consistently, it is important to seek means to increase the number of written plans.

Purpose of the Study

This study was made to determine whether an instructional simulation of the form of a Planning Exercise could serve as a process for affecting change in behavior.

Justification of the Study

Although nursing care is being provided for patients, the attempt to make this care individualized with provisions for continuity by the use of written nursing care plans has not been successful. An instructional simulation in the form of a Planning Exercise used as a method of promoting an increase in the number of nursing care plans should be of value as a means of motivating the nurse to write nursing care plans and providing experience in doing so under simulated conditions. If such instructional simulation proves valuable in one setting and for expediting one nursing function, it is plausible to conjecture that there are numerous implications for nursing education.

Terms used in the Study

Simulation: Simulation is regarded as the technique of representing some aspect of the real or proposed world or it can be the model itself. The common characteristic, no matter what the objective in its use, is that the essence of the real life situation is obtained without all of the reality. (43)

Contextual response simulation: When the learner is included as a participant, then the simulation is known as a contextual response simulation. (43)

Academic or Learning game: If the contextual response simulation is further modified by introducing the aspect of competition between the participants as individuals or groups, then the activity can be regarded as an academic or learning game. (43)

Limitations

This study was limited to a tabulation and analysis of the frequency of written nursing care plans formulated by nursing personnel before and for four consecutive weeks after participation in a class on developing nursing care plans.

1. Written nursing care plans were those entries in the section of the Kardex entitled "Nursing Care Plan". Minimum criterion was any entry under the column entitled "Problem" which might be physical, emotional, socio-economic or rehabilitative with a corresponding entry under the column entitled "Approach" which would indicate a possible course of action applicable to the problem. No attempt was made to evaluate the plans or to determine if they had been carried out.

2. Participation was limited to the nursing personnel of four medical-surgical departments of the University of Oregon Medical School Hospital.

3. Nursing personnel were defined as those members of the hospital staff actually involved with the provision of direct nursing care to the patient.

4. Classes in developing nursing care plans were presented by using lecture-discussion or instructional simulation methods of teaching.

Description of the Study

Literature and related studies on the use of instructional simulation were reviewed. A nursing activity was sought which might be improved by the use of instructional

simulation. A clinical experience on one of the medical-surgical departments at the University of Oregon Medical School Hospital suggested nursing care plans were not being written for patients in this department even though a space was provided in the Kardex for such plans. A survey of the Kardex confirmed this suspicion.

The literature regarding the current use of written nursing care plans was reviewed. The nursing service staff development department of this hospital had been conducting an in-service program on written nursing care plans in several of the medical-surgical departments. Administrative clearance for introducing instructional simulation as a part of this program was obtained.

A statement of the problem and purpose of the study were formulated. The design of the study was based on voluntary participation of head nurses and nursing personnel from four medical-surgical departments. The nursing personnel of two of these units had previously participated in some instruction in the use of the written nursing care plans offered by the nursing service staff development department. The nursing personnel of the other two units had received no in-service instruction on written nursing care plans.

A Planning Exercise was developed (Appendix C) with the assistance of Paul Twelker, member of the Teaching Research

staff, Oregon State System of Higher Education, using a "Checklist" provided by Teaching Research (July, 1968) (Appendix B).

The written nursing care plans in the Kardex section entitled "Nursing Care Plan" in each of the four departments were counted. A class in developing written nursing care plans was offered to the personnel in the four departments as follows:

a. Previous in-service classes and the Planning Exercise.
b. Previous in-service classes and the regular form of instruction.
c. No previous classes and the Planning Exercise.
d. No previous classes and the regular form of instruction.

Certain demographic information was obtained from the participants by the use of a simple questionnaire. The number of written nursing care plans in the Kardex in each department were again counted 1, 2, 3 and 4 weeks after the classes were offered.

Data were categorized and findings were interpreted and presented in this report. The study was summarized, conclusions were drawn and recommendations were made for further study.

Overview of the Study

Chapter I includes the statement of the problem, purpose of the study, justification of the study, terms used in the study, limitations and a description of the study.

Chapter II contains a review of the literature and related studies on the use of written nursing care plans and the utilization of instructional simulation.

Chapter III describes the methodology and analysis of the data and an interpretation of the findings of the study.

Chapter IV contains a summary of the study, conclusions drawn and recommendations for further study.

CHAPTER II

REVIEW OF LITERATURE AND RELATED STUDIES

Introduction

The literature was reviewed for information concerning the utilization of instructional simulation. However very little was found about the use of this instructional medium in nursing. de Tourngay (10) developed a simulation activity which she used for evaluation of student nurse performance in problem solving but no sources were located which revealed information regarding the use of instructional simulation in nursing to produce a behavior change by having the participant in the simulation make responses that would be required in the real life situation.

Since it was proposed that the simulation be used for written nursing care plans, review of literature in this area was also included.

Instructional Methods and Media

Abt states that the objective of education is to bring students to a state of mastery over facts, problem solving methods, general ideas and the learning process itself by which this mastery is achieved. (2) Teachers aid the students to learn by the use of various teaching methods. According to Skinner, a teaching method is a way of arranging environment which expedites learning. (39)

Taba prefers the term "teaching strategy" and defines this as a consciously formulated plan designed to produce particular changes in students. (41) Such a plan is translated into the conditions and activities for the learning process by coordinating the steps of the learning tasks and the psychological steps of the learner. Traditionally the teacher has felt she has done a good job when she has presented the student with facts, alternative solutions to problems, consequences of action and discussion of problems that may be encountered. She has organized content and presented it with clarity but may have deprived the student of the opportunity to think through the problem or to experience the situation. (11)

de Tourngay expresses the opinion that the student must be able to organize the information he receives in his memory, have an understanding of it and be conditioned to

use it in problem solving. (11) The student must be able to see a relationship between what he knows and how he could apply it.

Lumsdaine proposes that the criteria of effectiveness in teaching lies in the behavior of the student and therefore ways must be derived to plan learning situations to produce a modification of behavior in the student. (31) If emphasis is on helping the student to think, to act, to solve problems, to explore alternatives and to test hypothesis, then ways must be derived to accomplish these objectives. (15)

When a teacher develops a plan to produce particular changes in students, she uses various means of communicating the information to the student. This means of communication is called the instructional medium and can be defined as "something intervening and acting as a means of transmission or communication; or that by or through which anything is accomplished". (36) Instructional materials such as films, tapes, slides, books and laboratory demonstrations are sometimes considered to be the media for instruction. John Dewey suggested that these were not media of themselves but entered into the formation of media only when they interacted with the mind and skill of an individual through expression and communication. (22)

Instructional Simulation

Simulation can be classified as an instructional medium. There has never been any serious doubt as to the relevance of simulation to education. Some forms have always been used. The problem lies in identifying the range of activities to which it can be applied and how it can be used most effectively. Simulation can be used in the instructional setting in a demonstration role to present information. It may also be used to elicit responses that are required in real life or it can be used in the assessment and evaluation of performance. (43)

Twelker defines simulation as the representation of some aspect of the real or proposed world without all of the reality. (43) A simulation not only omits certain elements of real life, but it may represent some of the elements that are not included. These may appear as a distortion, exaggeration or magnification as for example, the model of an atomic structure.

A simulation may be some type of representation of real life (17) which simply requires response from the learner on a visual level such as movies, pictures or models which can be used to present information or to demonstrate. A simulation may also require that the learner be included in the response as a participant as it

is used in role-playing. This type of simulation is known as contextual response simulation. (43) It is a way of using representation in an instructional system that guarantees involvement of the learner in a non-real life stimulus situation that simulates some aspect of real life. (8,17) When the aspect of competition is then introduced, this type of simulation is known as a game. Vinacke defines a game as a contest conducted under specified rules in which the outcome is not known in advance, but depends upon the actions of the participants. (45)

Gagne' prefers to call contextual response simulation a "training device". (16) He differentiates the training device from the training aid (which may be a simulation) by defining the training aid as an object used to facilitate the presentation of information while the training device is used for acquisition of skills through provision of repeated practice, motivation and reinforcement.

Forster and Skinner define reinforcers as stimuli which either strengthen or weaken responses. (13) The scheduling of their occurence is of critical importance in learning. Houston demonstrated that telling the learner he is right or wrong immediately did not improve transfer of learning even though it did have an immediate effect on the level of performance. (24) Goldstein indicated that lasting skill changes were produced when information was given about the

direction and extent of the error. (19) Vinacke expressed that there is strong confirmation in research to show that almost any opportunity for subjects to obtain or use information significantly influences their behavior. (45)

One of the obvious objectives of instructional simulation is to produce a transfer of learning. Transfer can be considered as a situation in which there are deliberate attempts to induce a gain in performance in the real life situation through training under simulated conditions when the performance in the real situation can be considered to be clearly different from that of the simulated conditions. (32)

Motivation is the practical art of applying incentives and arousing interest for the purpose of causing a learner to perform in a desired way. It usually designates the act of choosing appropriate study material and presenting this material in such a way that it appeals to the students' interests and causes the students to attack the work at hand willingly and to complete it with sustained enthusiasm. It can also designate the use of various devices such as the offering of rewards or an appeal to the desire to excel. (18)

Motivation can be regarded as the stimulation of action toward a particular objective where previously there was little or no attraction to that goal. Heidgerken believes that the teacher does not use motivation, nor does she

motivate directly, rather she arranges the environment, utilizes activities and various devices to try to help students become motivated to learn. (23)

Motives, like habits or emotions, are constructs, concludes Harris; they cannot be directly observed or measured but must be defined by the actions of the individual which precede the event and occur afterwards. (21)

Burton classified motives as either intrinsic or extrinsic but believed that intrinsic motivations are to be preferred. (6) Extrinsic motivation resides in some factor outside the learning situation such as reward or punishment and intrinsic motivation is inherent in the learning situation and meets pupil needs and purposes. Shirts states that the value of simulation gaming lies in the students' need for relevance and active participation as opposed to the nonparticipant role of viewer and listener. (38)

Gaming introduces an element of stress in the situation by introducing competition between participants or groups of participants. A positive correlation was found by Deese between stress as a motivation factor and skilled performance. (9)

Cherryholmes concluded that the chief advantage of simulation games was the motivation factor. (5,7) The

general consensus of most proponents of simulation games is that the element of motivation inherent in game playing is its major utility. (7,38,43)

The element of cooperation is introduced in the simulation when the participants work in groups. Deutsch stated that members of a group using cooperation tend to facilitate each others' progress. (12) The results of group cooperation were a coordination of effort, homogeneity of participation, structural stability and organizational flexibility. This produced a motivation toward the goal, more communication, mutual agreement and greater group productivity. Interpersonal relations were improved through this process.

According to Heidgerken, practice is the occasion for learning and not the learning itself but it does produce learning in direct proportion to the information obtained as compared with errors made and in direct proportion to the effort put forth and sustained in the practice. (23)

Hull found there is a uniformly direct relationship between efficiency of learning and spacing of practice trials but inferred that this is less dependent upon the precise interval the practice is used than on how the total training is divided into well-spaced blocks. (25) Therefore the amount, extent and spacing of practice periods are of prime importance.

Thompson reported that the type of learning activities in which a student takes part (observation or participation) has no significant effect on the amount of theoretical knowledge acquired. (42) This comment, however, was drawn from only one rather small study and might well be questioned.

de Tourngay proposes that problem solving can only be taught if the student participates in problem solving activities. (10) She infers that since the welfare of the patient always comes first, one of the advantages of the simulation activity for the student nurse is that it allows the participant to exercise her judgment and be informed of the consequences of her action without direct patient contact, thus providing a safe environment for practice and eliminating the hazards of making a mistake in the real life situation. (43)

Smith referred to the limitation of clinical facilities suitable for providing a setting for nursing practice as a major problem in education for nurses. (40) Kinsinger concurs and suggests that simulation would be one solution to the problem. (28) To support this statement, he made the analogy that military units learned to apply simulation technology long ago as a means of resolving some of their educational problems. As an example he referred to Rear Admiral Luis de Florez who received the Legion of Merit for

his wartime effort in the use of hundreds of ingenious machines that realistically simulated combat conditions. The Congressional Subcommittee for Naval Affairs reported that the use of his devices were the equivalent of hundreds of hours of additional training in the conventional manner.

Planning Exercise

The Planning Exercise (1,3,33) represents a combination of components that might best be described as a mixture of debate, competition (or gaming), cooperation and simulation. When mixed thoroughly with a precise statement of a goal to be reached, either in the form of an issue to be resolved or a situation to be improved, Abt Associates describe the effects as a productive experience which enables students to exercise in a relevant manner problem solving and decision making skills. (1) A Planning Exercise integrates cognitive learning of facts or principles with the application of ingenuity and skill in order to extend an individual's thinking and perception of a problem and its solution. (37)

The staff of the Springfield, Oregon, Inservice Program of the Springfield school district, (37) August, 1969, indicated that the Planning Exercise can give the individual

an opportunity to:

1. Consider problems in an interesting, creative manner. (simulation, motivation)
2. Work collectively with other team members to find the most precise statement of a problem or the most powerful solution. (cooperation)
3. Have his team's work judged in relation to other team's products by his own peers. (gaming)
4. Learn skills of identifying problems, working out a solution, concisely presenting a case and justifying it. (practice)

Twelker stated that typically, planning of complex situations where numerous points of view might be brought to bear takes place in rather sterile environments that do not allow the planners to use creativity and experience to detect unforseen difficulties, develop new strategies and examine their effect on the proposed program. (43) The simulation exercise known as the Planning Exercise offers great potential for planning.

Written Nursing Care Plans

The Joint Commission on Accreditation of Hospitals, the only recognized accrediting agency for hospital nursing service, establishes standards for nursing service. (26) In 1966 the commission stated that a requirement for accreditation was a "constant review and evaluation of nursing care provided to patients". Grosick states that the written nursing care plan is inherent in this requirement for planning and evaluation of patient care. (20)

A written nursing care plan provides information for the comprehensive care of patients. It is a communication guide developed by the nurse with the assistance of the patient, family and health team. It is used to provide for individualized patient care, for setting priorities, for improving communication and assuring the continuity of care. (14,30,34,46)

Nursing care plans are also concerned with the coordination of patient care so there is an even progression of nursing care throughout the phases of the patient's illness. A written nursing care plan assists in the evaluation of care by providing specific data concerning the nurse's perceptions and expectations of the patient's conditions. (27,30)

The purposes of the recordings on the Nurses' Notes on the patient's chart differ from those on the nursing care plan. The patient's chart should contain notations which have a direct bearing on the patient's health problem. Feurst and Wolff set forth four inclusions for nurses' notes:

1. Whether the prescribed therapy was carried out and if not, why not.
2. The reaction of the patient to the therapy.
3. Any observations possibly not related to the therapy but which should be investigated.
4. The progress or the status of the patient in matters related to the health problem but not necessarily a part of the written orders. (6)

These notes should not be a duplication of the nursing care plan but rather a comment or a progress notation from it.

The nursing care plan is designed for use by the nursing personnel and contains information pertinent to the nursing care of a particular patient. The notations on a nursing care plan are those modifications in the patient's care which the nurse, by virtue of her understanding of the patient's illness and the physician's plan of care and wishes, can make for the patient's comfort and safety. (14)

The procedure for developing a written nursing care plan consists of several steps:

1. Perception of patient needs that will influence nursing care. (29)
2. Identifying problems and setting current priorities of attention and care.
3. Stating the situations in which the patient requires or would benefit from the assistance of the nurse in attaining the desired goal or solution.
    a. Setting of the desired goals or objectives in the problem area.
    b. Prescribing the nursing actions to be undertaken.
    c. Determining criteria for assessment of patient progress.
4. Revising the nursing care plan in terms of patient response and changes in his situation. (47)

A nursing care plan does not ensure optimal patient care but a movement toward providing this kind of care through the written nursing care plan is being encouraged. (27,30,46) There are no rules as to how nursing care plans should be done, only suggestions and recommendations of ways they have been developed and used successfully by others. The task is to find ways to encourage nurses to

develop and use the written nursing care plan. Methods of implementing and evaluating the plan can follow, but first they must be written.

Wagner states that nurses feel uncomfortable about nursing care plans. (46) She gives no explicit reasons for such a belief but this feeling of discomfort may be an indication of a reason for nurses' reticence in writing nursing care plans. Zirbes implies there is bound to be a resistance where habits of individuals are involved and their attitudes are not accepting. (48)

Related Studies

Sarane Boocock developed a study of the Effects of Games with Simulated Environments upon Student Learning (unpublished doctoral's dissertation, Department of Social Relations, The Johns Hopkins University, Baltimore, Maryland, 1966). (5) Boocock was concerned with the type and effectiveness of the learning produced in simulation gaming and attempted to evaluate the educational value of two learning games.

Delegates of the National 4-H clubs, which included 1200 young people ranging in age from thirteen to twenty, were randomly assigned to one of two games. The games were the

Life Career game and the Legislative game.

The Life Career game was organized into rounds or decision periods, each of which represented one year in the life of a fictitious person. During each decision period, players planned their "person's" schedule of activities. Most activities required certain investments of time, training or money and a person clearly could not engage in all the available activities. The player's problem was to choose the combination of activities which they thought would maximize their person's present satisfaction and his chances for a good life in the future.

When the players had made their decisions for a given year, scores were computed and the team with the highest total score at the end of the game was the winner.

The Legislative game was a game of strategy designed to teach the basic processes of negotiation through which collective decisions were reached on issues in which different segments of society had differing interests. Unlike the Life Career game, the Legislative game put the student into a role that few of them had experienced and that few were likely to play as a major role in their adult lives.

The game alternated between informal "bargaining" sessions and formal sessions of legislature. A legislator's

success was determined by whether he got passed or defeated those measures his constituents most wanted passed or defeated.

The advantages of the design for collecting data were the large sample, the random assignment on an individual basis and the control for the Hawthorne effect since everyone was subject to the "novelty" of a game. The disadvantages were that there was no allowance for a comparison of the game as a learning tool to that of other learning tools and that the only type of student who participated was in the top half of the high school classes academically.

All participants filled out identical questionnaires before and after the games, with some additional questions afterwards pertaining to the particular game they had just played. Boocock concluded that in addition to the obvious motivational effects of games which were reported by virtually all observers, the data indicated that there were three different kinds of learning produced which she identified as learning by vicarious experience, intellectual learning and behavior change because of a feeling of efficacy or sense of being able to understand and control the situation.

Substantial amounts of learning or changes in attitudes were not expected from such a brief game experience but Boocock stated that under the circumstances, the changes

reported were rather impressive and predicted that longer use of the games would produce more learning.

Eugene H. Baker did a study of a pre-Civil War simulation for teaching American history which he developed as compared to the same subject matter taught by conventional techniques. (4) This experiment was conducted during the winter of 1965-66 with 131 eighth grade students at a junior high school in Lincolnwood, Illinois. His objective was to determine whether teaching American history by a simulation would increase learning, relative to teaching by conventional methods.

The simulation reproduced the major characteristics and problems of the social, economic and political system in our country between 1840 and 1860. The participants worked through a series of problems such as fugitive slave laws, the abolitionist movement, distribution of economic prosperity, territorial expansion and tariffs.

The subjects were randomly assigned to four classes in American history. In two classes the simulation method was used and two classes were taught by conventional methods. The Otis Intelligence Test and the social studies section of the Stanford Achievement Test Advanced Battery were administered to all subjects. No significant differences were found among the four classes on either test.

A test was constructed to measure knowledge of American history in the pre-Civil War period including items similar to those in ordinary textbooks. This test was subjected to a pretest, reliability was estimated by using analysis of variance and the test was revised. The final test had a coefficient or reliability of .74 and an internal item difficulty of .46.

A questionnaire adapted from an instrument developed by Cherryholmes to measure attitude change after a simulated experience was devised to measure attitudes to centralized policy-making and appreciation of the complexities of foreign policy decisions. The unit knowledge test and the attitude survey were administered before and after the students participated in the simulation or traditional classes. In order to measure retention, the knowledge test was re-administered after six weeks.

Baker found that both simulation classes were superior at the post-test to both classes taught by the traditional methods and that the simulation students remained superior to the students who had been taught by the traditional methods.

The findings of the attitude survey supported Baker's hypothesis that students in the simulation classes would develop a more favorable attitude to centralized and efficient policy-making procedures and appreciate more the

complexities of the pre-Civil War problems. No such change was expected or found for the students taught by traditional methods. Baker concluded that the simulation instruction technique is potentially more efficient than the traditional instruction method as a means of communicating historical facts, concepts and attitudes to children at the junior high school level. (4)

It would have perhaps been a more valid experiment had someone other than Baker, the author of the simulation game, been the one to conduct the experiment in order to eliminate bias produced by his enthusiasm towards the subject and if the study had been replicated at some other time or place. The report did not indicate who taught the classes, Baker or other instructors.

Thompson's study of Observation versus Participation in a Selected Learning Situation attempted to determine correlations between observational learning and participational learning and amounts of theoretical knowledge obtained. (42) Fifty nursing students in their junior year on obstetrical rotation at a University Hospital, 1963, were studied. The students kept a tally of the type and amount of experience they acquired in the delivery room. The raw data were classified as to observational and participational experience. The students were given the National League for Nursing Achievement examination in

Obstetrics at the end of their rotation. An analysis of variance was done on the examination scores in relation to observational versus participatory experience. It was found that the type and amount of learning experience did not determine end results in terms of theoretical knowledge.

No device other than the Achievement Examination was used for measuring the learning so there was no way of determining the influence of Obstetrical classes as opposed to the clinical situation on the amount of theoretical knowledge obtained by the student. Since experience in the clinical setting is organized to provide practice to improve performance as well as to increase theoretical learning, a test of performance might have given further clues about the amount of learning resulting from observation or participation.

Thompson concluded that her study supported the hypothesis that no one method of structuring activities in the clinical situation is more effective in terms of learning than another. She also found that student performance in the clinical laboratory setting cannot be measured by pen and pencil methods.

Gregory Razran reported in the Journal of Experimental Psychology on a study he did in 1954 to show that conditioned attitudes were evoked when stimuli were repeatedly activated. (35) When musical selections, paintings,

photographs of college girls and quotations and slogans were presented to ten male adult human subjects during six consecutive free luncheons, the presented material evoked food attitudes. The subjects made food-related responses in tests given following the meal and one week later. Food attitudes were determined by frequencies of food-related free verbalizations, frequencies of food-related rhyme finding and speed of unscrambling food-related letter scrambled words. In all three tests the differences were statistically significant and Razran noted that this would seem to indicate that attitudes like factual material can be learned. This would appear to support the conclusions of those experimenting with simulation games (5) that it is possible to change attitudes through the use of instructional simulation.

Grosicki, Hagey and Johnson (1967) gave an account of their attempt to identify factors in the lack of success with written nursing care plans at the Veteran's Administration Hospital, Little Rock, Arkansas. (20) Twenty four nurses audited the nursing care Kardexes of sixteen buildings with an average total census of 2073 patients on that particular day. Eighty per cent were written in pencil to allow for change, three per cent were in ink and seventeen per cent had no entry in them. Less than one per cent were written in the last three days and

sixteen per cent were written in the last 30 days.

A questionnaire was developed to sample the opinions of the nursing personnel about written nursing care plans and distributed to 83 staff members. Fifty two of the questionnaires were returned or 63 per cent of those distributed. The survey revealed strong feeling about nursing care plans both favorable and unfavorable. Those favorable comments referred to improvement of nursing care through communication of information and implementation of continuity of care. Negative comments included lack of time to write the plans and the large number of plans to be written because of the large number of patients for which the personnel had responsibility.

The nurses expressed a need for help in:

1. Synchronizing methodology in preparing nursing care plans.
2. Obtaining assistance in refining their skills in writing nursing care plans.
3. Utilizing written nursing care plans to the optimum.

The conclusions of this survey were that nursing care plans serve a questionable purpose at this hospital with their present usage. Identifying data were seldom added to that which had been stamped on the Kardex with the patient's admission plate. Although psychosocial needs and related

approaches were found in over 50 per cent of the plans, long term and short term goals were absent or rated unrealistic in over two thirds of the plans. Since no attempt was made to determine whether the plans were used or in what way they might have been used, no conclusions could be drawn about their effectiveness.

It was determined that efforts should be directed towards more creative, as well as more understandable, methods of providing for continuity and consistent nursing care.

Summary of the Literature

Instructional simulation can be used to present information, elicit response and evaluate progress. It has a strong motivation factor and provides for practice and reinforcement of learning. The Planning Exercise is a form of instructional simulation which enables students to exercise problem-solving and decision-making skills and offers a potential for practice in planning.

Written nursing care plans have been recommended as a means of providing for continuity of care through improved communications and as an aid in evaluation of patient progress and response to the plan of care.

CHAPTER III

REPORT OF THE STUDY

Introduction

This study was undertaken for the purpose of determining whether instructional simulation could serve as a process for effecting change in behavior. Ennumeration of written nursing care plans was selected as the method of determining change. If the use of instructional simulation resulted in an increase in the number of written nursing care plans, then it would be possible to surmise that this form of instruction could be of value in other areas of nursing education. This study is descriptive in nature.

The study was developed according to the description given in Chapter I.

Method

The literature and relevant studies were reviewed relating to written nursing care plans, the learning process and use of instructional simulation. Following the review, a Planning Exercise was designed (Appendix C) with the assistance of Paul Twelker, a member of the staff of Teaching Research, Oregon State System of Higher Education, using a "Checklist" provided by Teaching Research, July, 1968.

The study was done in a University Hospital, bed capacity 262, with general services in a metropolitan area.

In order to determine whether nursing care plans were being written for patients, the plans in the Kardex section of one of the departments with a census of 22 patients were counted. Only three Kardex cards had any sort of notation. These three, neither dated nor initialed, were written in ink and appeared not to have been revised since the original recording.

The staff development department of this hospital had been conducting an in-service program on use of written nursing care plans in order to familiarize the hospital nursing personnel with written nursing care plans and attempt to increase their use.

Members of the staff development department responsible for this program were contacted. They indicated that nursing care plans were not being written for patients, expressed

dissatisfaction with the results of their program, were enthusiastically supportive of experimentation with other methods of instruction and volunteered their cooperation.

The extent of the in-service program at this point consisted of classes on written nursing care plans conducted on two medical-surgical departments with plans to enlarge the program to include other departments. These classes consisted of lecture-discussion sessions to present the definitions and purposes of written nursing care plans. It was reported that on one occasion the in-service instructor and class worked on developing a sample nursing care plan on a hypothetical patient as part of their class activity.

The program appeared to be quite informal. One member of the staff development department was responsible for the program. Attendance was on a voluntary basis thus possibly limiting the number of nurses participating. No records were kept on class attendance and a plan for assessing results had not been devised.

Personnel in the staff development department were informed of the proposed experiment with instructional simulation, agreed to suspend their operations on written nursing care plans until the study could be completed and allow the study to be conducted through their auspices.

Selection of Participants. It was decided by the personnel in the nursing service staff development department that the head nurses of the various departments could volunteer the participation of their personnel in the study. A meeting was arranged with the head nurses.

Participation of a department was dependant upon the acceptance by that particular head nurse of the philosophy of written nursing care plans and on her willingness to participate in the study. Head nurses from four medical-surgical units volunteered to participate. The personnel of two of these departments were those who had already received some classes on written nursing care plans through the staff development program; the personnel of the other two departments had received no previous classes on written nursing care plans under the auspices of this hospital.

Description of the participants. Twenty eight nursing personnel of four medical-surgical departments of the University of Oregon Medical School Hospital participated in the study. Nursing personnel were defined as those individuals responsible for planning and giving direct nursing care to the hospitalized patient. Table 1. shows the distribution of the participants according to type of class and department.

Table 1. Distribution of Participants According to Type of Class and Department.

Type of class	Previous in-service classes	N	No previous in-service classes	N	Total N
Planning Exercise (experimental group)	Department A	8	Department C	4	12
Regular class (control group)	Department B	7	Department D	9	16
Total sample size		15		13	28

Demographic information. To obtain demographic information regarding the participants, a simple questionnaire was developed. It has been conjectured that differences in age, preparation for nursing, amount of experience in nursing and in the use of written nursing care plans might influence the participants' behavior following instructional simulation or special instruction regarding the use of such plans. Of the 28 questionnaires distributed, only 18 responses were received. (Appendix D)

Item 1 was concerned with the age of the participant. Murdock stated that there was a relationship between the age of the learner, the type of material to be learned and the amount of transfer of learning. (36)

Recent graduates would more likely have had experience in the use of written nursing care plans during their preparation for nursing. Eleven of the 18 participants responding were under the age of 30.

Item 2 sought information about the preparation for nursing of the participants. Since the philosophies of the various types of nursing schools differ, the previous experience, knowledge and motivation of the participant would vary. Six of the respondents were licensed practical nurses, eight were diploma school graduates and two were graduates of a baccalaureate program. Two of the participants did not answer this question.

Item 3 asked for the amount of nursing experience of the participant. Previous experience might have had an influence on the number of nursing care plans written. Twelve of the respondents indicated they had less than five years of experience while only six had more than five years' experience in nursing.

Item 4 posed the question, were you aware of written nursing care plans before this class? This question was used to determine whether all the participants involved in the classes had the same basic awareness of nursing care plans. All 18 responses were affirmative.

Item 5 asked if the participant thought written nursing care plans should be used in the hospital in which they were employed. This item would tend to indicate an attitude towards nursing care plans. It is quite possible that many of the "Yes" responses on this item could be attributed to the fact that all the participants were aware of written

nursing care plans as indicated by their responses in item 4 and were also aware that the hospital staff development department was encouraging the use of the plans. The "Yes" answers could also have been the response they thought was "expected of them.

Although there was no request for comment, several of the questionnaires included remarks which here are cited verbatim:

"on long-term patients"

"on long-term or patients with unusual problems"

"patients with special problems such as language barriers, paralysis and such"

"for patients prepared for transplants, osteotomies, ennucleations and such procedures that will affect their way of life"

"with under staffing being the case as it has been, time doesn't allow for such things"

Two of these comments were given by graduates of a diploma program and two were given by licensed practical nurses. The one "No" response was from a diploma graduate with less than one year of nursing experince. These comments appear to be directly related to the hospital-formulated informational aid on written nursing care plans which lists

the criteria for the use of nursing plans as:

A. All patients eligible for Medicare

B. Any long term patient

C. Any short term patient with special needs.

(Appendix A)

Table 2. Summary of Demographic Data Obtained on Eighteen Participants.

		Types of Preparation for Nursing			
		Practical Nursing	Diploma	Bacc.	Prep. not indicated
Prep. for Nursing		6	8	2	2
Age -	Under 30	5	4	2	0
	Over 30	1	4	0	2
Nursing Experience					
	Under 5 yrs.	5	4	2	1
	Over 5 yrs.	1	4	0	1
Aware of Care Plans	Yes	6	8	2	2
	No	0	0	0	0
Should be used	Yes	6	7	2	2
	No	0	1	0	0

Description of the study. The nursing personnel of two of the four medical-surgical departments served as the experimental group and participated in classes in instructional simulation using a Planning Exercise. One of these departments had previous in-service classes on written nursing care plans and one had not.

In order to diminish bias, a control group consisting of the personnel of the remaining two medical-surgical departments was used and given as much instruction on written nursing care plans as the experimental group with a learning activity in the form of regular in-service classes conducted by the nursing service staff development department personnel. One of these departments had had previous in-service classes on written nursing care plans and one had not.

It was decided that groups A and C would be the experimental group and B and D the control group by a blind drawing of slips of paper with the letters marked on them.

Time for the in-service classes was scheduled. The instructional simulation and regular staff development classes were conducted on a Monday, Tuesday and Wednesday of the same week at the convenience of each department in scheduling a meeting but spaced as closely together as possible to eliminate discussion between the personnel of the various departments. It was decided that time set aside for ward conferences would be used for the in-service classes.

Collection of the data. The section of the Kardex entitled Nursing Care Plans served as a record of the number of written nursing care plans. Only those entries under the column entitled "Problem" which might be physical, emotional,

socio-economic or rehabilitative with a corresponding entry under "Approach" which would indicate a possible course of action applicable to the problem were counted.

No attempt was made to evaluate the nursing care plans. A single entry under "Problem" and "Approach" was sufficient to have it counted as a written nursing care plan. Some nursing care plans, of course, included numerous entries.

There were student nurses assigned to all four of the departments. The student nurses were considered to be pre-conditioned to written nursing care plans and therefore not included in the classes in this study. It was not possible to have the nursing students transferred to other departments during the period of the study and since initials were not used on the nursing care plans, no attempt was made to differentiate those plans which were written by students and those done by the nursing personnel participating in the study. It was conjectured that the number of students and their case load would remain relatively stable and a decrease or increase in nursing care plans might be reflected by the activity of the staff.

It was possible to differentiate some student nursing care plans from those of the regular staff because the student plans were uniformly done in pencil and sometimes quite lengthy while those done by the nursing personnel were sometimes in ink. But since there was no way of absolutely

identifying the author of each plan the validity of the data may be questioned.

No efforts were made to determine whether the written nursing care plans were actually being used or if the written nursing care plans had any effect upon the quality of nursing care.

Written nursing care plans, as described above, were counted one week previous to any proposed classes and were counted again by the same person each Monday at the same time on each department for four weeks after the nursing personnel had participated in the classes.

Numerical data were transferred to a master tabulation sheet from which tables and figures could be calculated. (Appendix F) The proportion (p) of nursing care plans written was calculated by dividing the number of nursing care plans written (n) by the total census of patients (N) in that department: $p = \frac{n}{N}$.

Findings of the Study

Department A. The personnel of this department had previously participated in staff development classes on written nursing care plans and used the Planning Exercise (Appendix C) for this class.

A brief introduction was given. The group was told "this time period will be used to work on written nursing care plans. You will be participating in what is called a Planning Exercise. You will find a brief introduction and instructions on the printed material which is being distributed. This material should be self explanatory."

The members of the group were not told that the number of written nursing care plans in the Kardex were being counted. The group divided into two teams and each team was given a direction sheet for the first round. The directions were read, pencils and Kardex cards provided and the tape of a partial nursing history interview was played.

A ten minute limit was given for assessing nursing problems in the simulated situation and planning nursing intervention and continuity of care through the use of written nursing care plans.

In the second round, only one team interviewed the "patient". Both teams, by written direction, (Appendix C) had been told that the "patient" was available for

additional information. Two different plans of care were developed because of the difference in information which the two teams obtained about the patient.

Discussion after the second round focused on the differences in the two nursing care plans. All the members of the group participated actively in the Planning Exercise and discussion.

There were no negative comments about the method used.

Five of the eight participants on this department filled out the demographic questionnaire. Two were diploma school graduates and three were licensed practical nurses. All the respondents had less than five years' experience, were aware of the use of nursing care plans and felt they should be used in this hospital. Their ages ranged from 20 to 34.

Zirbes (48) stated that habits of individuals affect acceptance and implied that younger individuals have not had an opportunity to establish long standing habits and have a more accepting attitude toward change. This department should have had a good response to nursing care plans since the personnel were relatively young with less than five years' nursing experience, had already had some classes on written nursing care plans and probably had experience using them during their nursing education. The proportion of nursing care plans written by nursing

personnel did, in fact, show the greatest increase (Figure 1) in this department immediately following the class.

The increase was not sustained over the following three weeks, however, and eventually decreased below the original number. Perhaps this was due to lack of reinforcement of the activity and no provision for continued practice. The original increase might also be attributed to the novelty of the class and the class could have simply served as a reminder that nursing care plans were expected to be written.

The larger number of licensed practical nurses working on this unit may have influenced the number of care plans written.

The decrease in the proportion of written nursing care plans in the fourth week might reflect the fact that it was the end of the academic quarter and the student nurses were no longer in the departments. It had already been stated that student nurses were writing nursing care plans for the patients to which they were assigned.

DEPARTMENT A

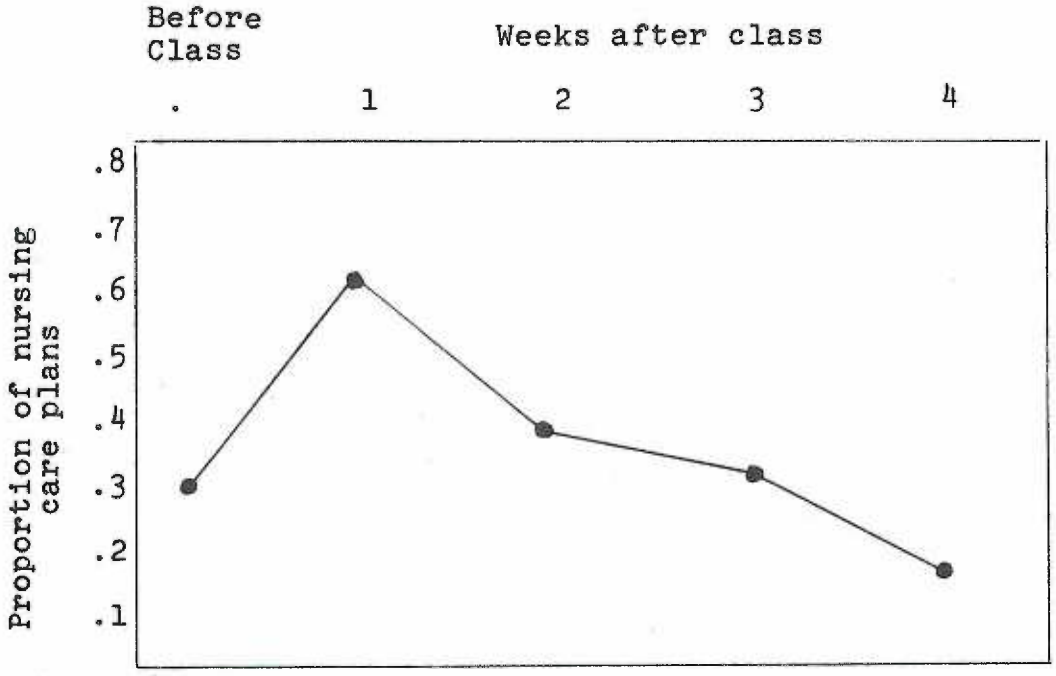

Fig. 1. Proportion of Nursing Care Plans Found in Kardex Before and 1,2,3 and 4 Weeks After a Class on Written Nursing Care Plans Using Instructional Simulation.

Department B. The personnel of this department had previously participated in staff development classes on written nursing care plans and the ward conference consisted of a regular staff development class on written nursing care plans. The format for the regular class was that of an informal lecture-discussion group. The purpose and importance of nursing care plans were discussed.

Much of the discussion centered around finding time to do the written nursing care plans. There appeared to be a great deal of confusion about written nursing care plans and their relationship to nursing care as evidenced by comments elicited during the discussion such as:

"We only have time to think about nursing care plans after we finish with all the treatments and medications."

"Miss _____ shouldn't be attending this session since she will be going on night shift soon."

"We just don't have time to do nursing care plans."

"We don't think we ought to start doing nursing care plans until we have the department functioning in the way we think it ought to."

Participation in the discussion was not as great as in the groups using the Planning Exercise. Approximately half the group did not speak. The class was concluded after the statement by one of the personnel to the effect that despite how they all felt about written nursing care plans being an added responsibility, it was obvious that they were of value, would implement their nursing care and should be done.

Four of the seven participants returned the demographic information questionnaire. All were aware of nursing care plans and stated they should be used. The widest range in

age and nursing experience occurred in this department with two of the respondents under 30 years of age and two over 50, two with less than five years' experience and two with 15 to 20 years' experience. There was one graduate each from a practical nursing program, diploma school and baccalaureate program and one who made no response to that item. With this much diversity, no suppositions can be made about the influence of age or experience on the attitudes toward the use of written nursing care plans.

Although the increase in proportion of written nursing care plans was not as great as that of Department A immediately following the class, there was a substantial increase in nursing care plans in the second and third week following the class.

Again there was a decrease in the proportion of written nursing care plans in the fourth week after the class but the proportion remained larger than before the class and greater than with the planning exercise. It can be conjectured that this increase may have reflected a self-initiated decision to write nursing care plans as indicated by the concluding statement at the ward conference.

DEPARTMENT B

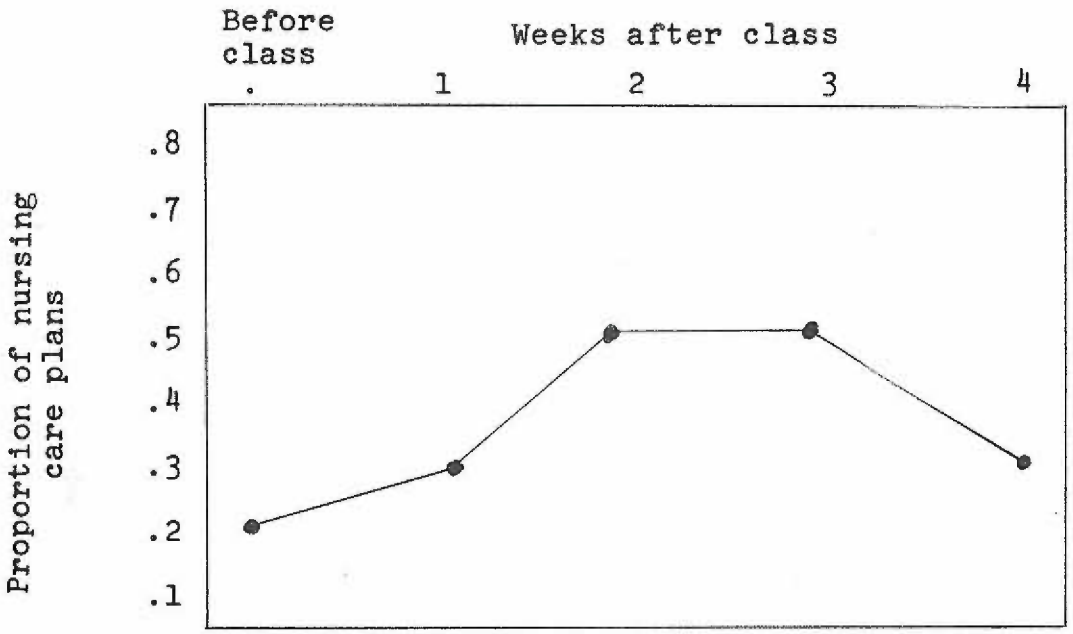

Fig. 2. Proportion of Nursing Care Plans Found in Kardex Before and 1,2,3 and 4 Weeks After a Class on Written Nursing Care Plans Using the Lecture Discussion Method of Teaching.

Department C. The personnel of this department had no previous in-service classes on written nursing care plans. The planning exercise method of instruction was used for the ward conference. The same procedure for conducting the class was used as described for Department A. Again, in the second round, only one team interviewed the "patient". Two different plans of care were again developed because of the difference in information which the two teams obtained about the patient.

Discussion after the second round involved the value of the written nursing care plan to facilitate communication and continuity of care. The personnel participation in the class were attentive and appeared to be interested in the activity.

The personnel in this department varied from those of the other three departments. There were fewer personnel participating and a corresponding larger number of student nurses assigned to this unit which may have accounted for the higher over-all proportion of written nursing care plans.

Three demographic questionnaires were returned by this group. Two participants were diploma school graduates while the other was a licensed practical nurse. All were under 30 with less than 10 years' experience. This situation was quite similar to that of Department A and this group should also have shown a good response to the class.

There was no increase in the proportion of nursing care plans written one week following the class indicating that this group was probably not affected by the class. Possible reasons for this might be that a large proportion of nursing care plans were already being written by the students who did not attend the class, or that nursing care plans were already being written by the nursing personnel. It might be conjectured that instructional simulation as an introductory class is not as effective as it was in the department where

it followed previous instruction in nursing care plans. (Figure 1.)

Since there was a smaller number of staff participants, the increase in proportion of written nursing care plans in the second week after the class may simply reflect increased activity on the part of the student nurses.

The lack of decrease in proportion of written nursing care plans in the fourth week after the class when the student nurses were no longer in the department again might indicate that the study group was already writing nursing care plans for a large proportion of their patients.

DEPARTMENT C

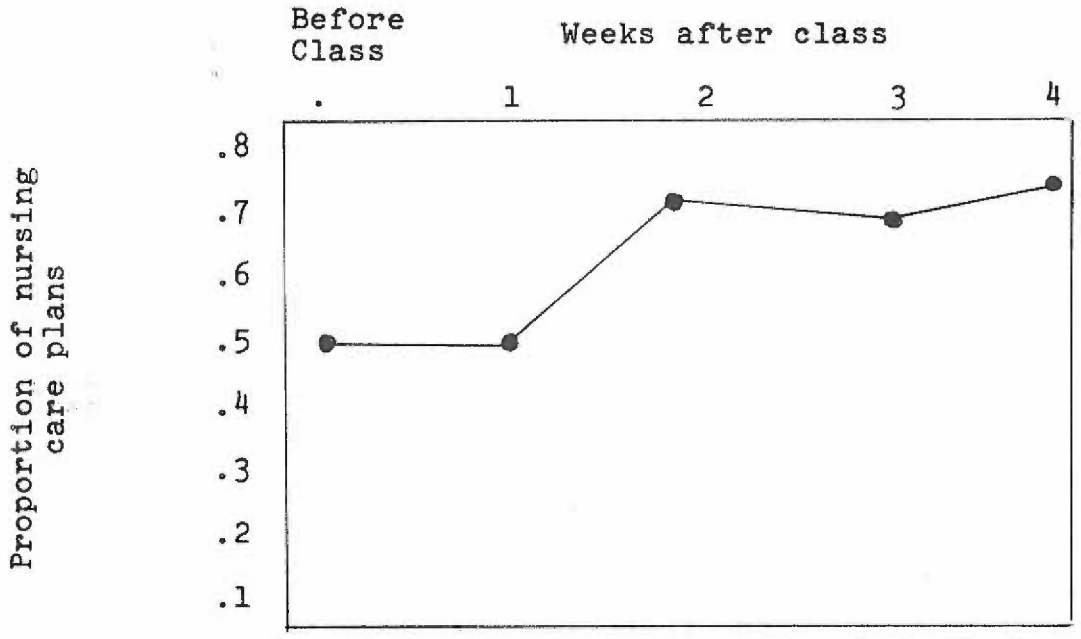

Fig. 3. Proportion of Nursing Care Plans Found in Kardex Before and 1,2,3 and 4 weeks After a Class on Written Nursing Care Plans Using Instructional Simulation.

Department D. The personnel in Department D had no previous in-service classes on written nursing care plans. The regular nursing service staff development class on written nursing care plans was presented by the lecture-discussion method. The values and purpose of written nursing care plans and procedures for writing nursing care plans were presented.

Discussion again centered around concern for finding time for writing the nursing care plans and what seemed to be a feeling that writing plans would be an added

responsibility. Acceptance of written nursing care plans by the members of the group appeared to be more positive than with Group B lecture-discussion group as evidenced by an agreement at the end of the period to meet for further discussion and study on their own time at a private residence. Subsequent meeting times for this discussion were not set until this study was completed.

This group returned the greatest number of demographic questionnaires. There were three diploma school graduates, one baccalaureate graduate, one licensed practical nurse graduate and one with no answer on the professional education question. Two of the respondents were under 25 years of age and had less than one year experience while the remainder were over 40 years of age with from six months to over 15 years' experience.

The ward conference on written nursing care plans appeared to have no effect on the number of written nursing care plans. The number of plans decreased in the two weeks following the ward conference which might have indicated resistance to written nursing care plans because of previously formed habits.

This department also included the only negative response to the question "Do you think nursing care plans should be used in this hospital?" This response came from one of the younger participants who might have been the only

one to have enough courage to answer exactly as she felt in the face of recommendations that written nursing care plans be used.

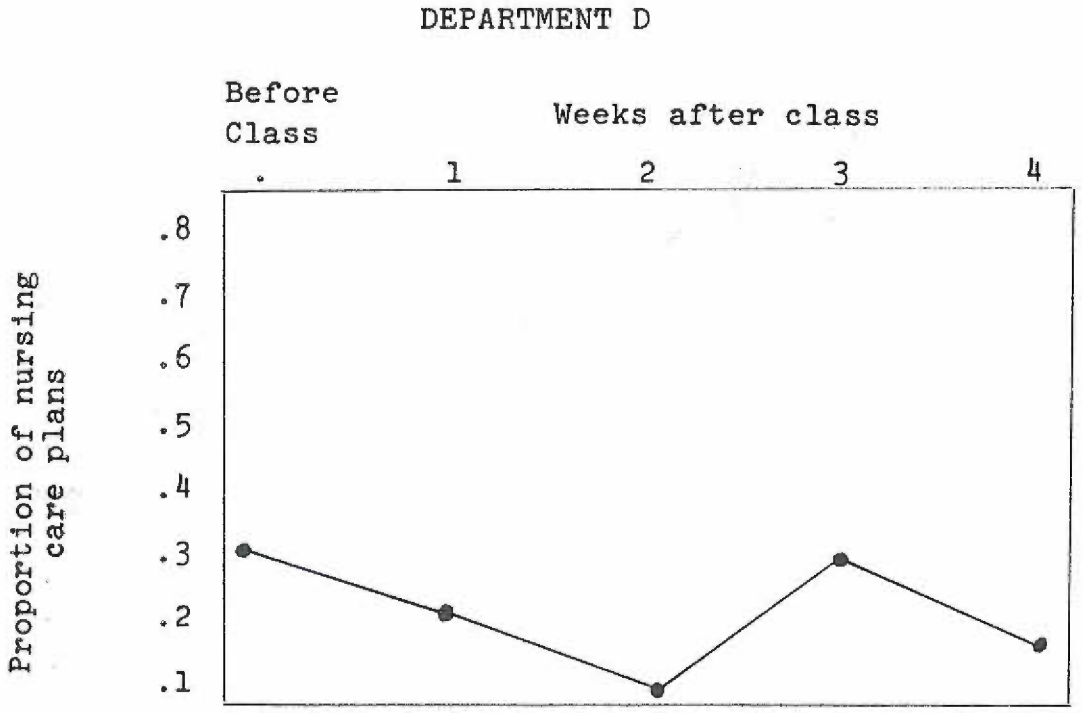

Fig. 4. Proportion of Nursing Care Plans Found in Kardex Before and 1,2,3 and 4 Weeks After a Class on Written Nursing Care Plans. Using the Lecture-Discussion Method of Teaching.

As indicated, the proportion of written nursing care plans before initiating the study and in the four weeks subsequent to the classes was calculated by dividing the number of nursing care plans written by the total census of patients in that department: $p = \frac{n}{N}$. Table 3 shows these proportions.

Table 3. Proportion of Nursing Care Plans Written by Nursing Personnel of Four Departments at the University Hospital.

	Before class	Weeks after class 1	2	3	4
Department A	.32	.61	.34	.30	.15
Department B	.23	.26	.50	.50	.32
Department C	.50	.50	.70	.65	.67
Department D	.31	.16	.05	.27	.11

COMPOSITE OF THE FOUR DEPARTMENTS

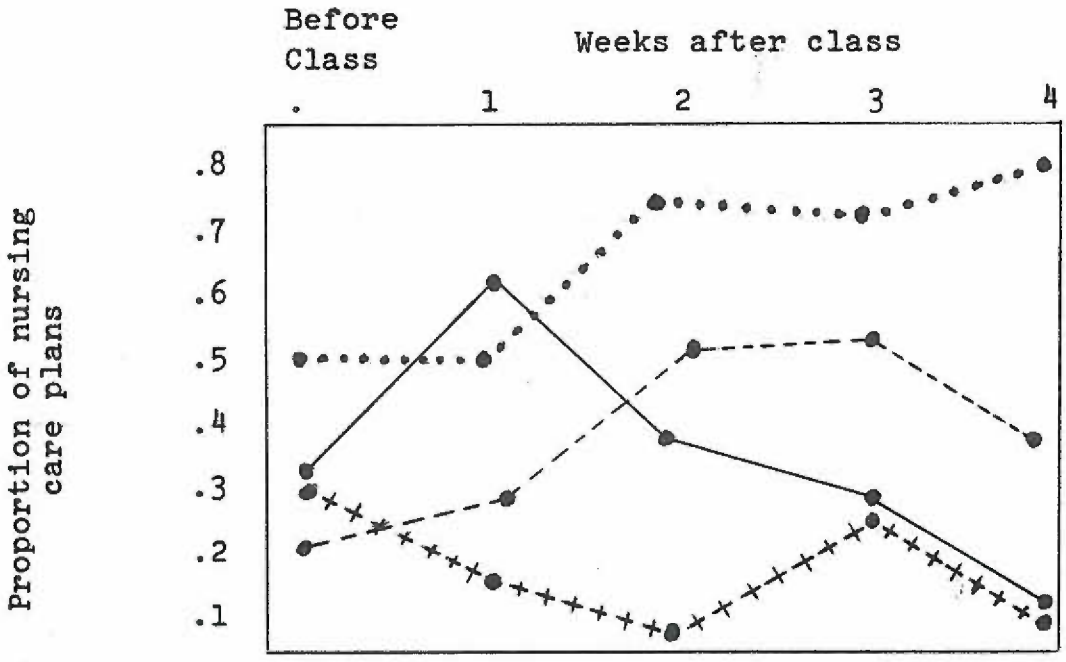

Figure 5. Proportion of Nursing Care Plans Found in Kardex Before and 1,2,3 and 4 Weeks After Classes on Written Nursing Care Plans.
Legend: Department A——Instructional simulation
Department B-----Lecture-discussion
Department C••••Instructional simulation
Department D+++Lecture-discussion

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was an attempt to determine whether instructional simulation could serve as a process for affecting change in behavior. The basis for determining change in behavior was an ennumeration of written nursing care plans found in the Kardex.

The study was conducted in four medical-surgical departments of a University Hospital. Data were collected by counting the number of nursing care plans in these departments before and after conducting classes on written nursing care plans. Those attending the classes were hospital personnel who were giving direct nursing care to the patient.

Two methods of instruction were used in the classes. One was the traditional lecture-discussion method and the other was instructional simulation.

Because of the student nurses assigned to the departments and the lack of identification of author on the nursing care plans it was impossible to determine if those on the staff who were participating in the classes were influenced by the classes, or if there was any change in behavior at all.

Conclusions

No generalizations can be made on the basis of this study due to the small number of personnel participating and the difficulty in identifying who wrote the nursing care plans and when they were written.

It was obvious during each of the lecture-discussion sessions that there was a great deal of emotion involved with writing nursing care plans. The overall attitude seemed to be that this was an additional responsibility with dubious benefits to the patient.

There appeared to be a greater immediate increase in written nursing care plans when the instructional simulation followed previous classes in written nursing care plans. Nursing care plans were not a new concept to any of the participants and there was no expectation that one class, whether it was the initial one or one in a series would produce any sustained increase in the number of written

nursing care plans.

The study did show that it was possible to devise an instructional simulation in the form of a planning exercise that could be used in a nursing situation. The instructional simulation classes differed from the lecture-discussion classes in that the entire group participated actively in the sessions. The need for providing individualized patient care and improvement of communication were demonstrated by the class members themselves.

Recommendations for Further Study

Based on the findings and conclusions of this study, the following recommendations were made:

1. Replicate the study using a larger population in hospitals without nursing students or on units without students who were considered to be preconditioned to the use of written nursing care plans. More attention should be given to the variables of age, professional nursing education and nursing experience with the provision for a method of identifying when the nursing care plans were written and by whom.

2. Survey the attitudes of personnel giving direct nursing care to the patient towards the written nursing care plan by personal interview or questionnaire.
3. Using formulated criteria for quality nursing care, investigate the effects of written nursing care plans on the quality of patient care.
4. Study the effectiveness of self-initiated departmental in-service programs as compared to in-service programs directed and conducted by a separate staff.

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APPENDICES

APPENDIX A

Nursing Care Plan Instruction Form

University of Oregon Medical School Hospital

NURSING PLAN INSTRUCTION

A Nursing Plan is designed to meet the challenge of individual patients, to make their hospital stay more meaningful in terms of achieving both short and long terms goals, and to render their hospital stay as pleasant and worry-free as possible.

I. Criteria for use of Nursing Plans:
   - A. All patients eligible for Medicare
   - B. Any long term patient
   - C. Any short term patient with special needs

II. Equipment

Regular Kardex cards

III. Uses of Nursing Plans:
   - A. Anyone of the nursing staff may start or add to a Nursing Plan section of the Kardex cards.
   - B. Writing to be done in pencil on the Nursing Plan section of the Kardex cards.

IV. Information included on Nursing Plans:
   - A. Problem:
     1. Physical
     2. Emotional
     3. Social - economic
     4. Rehabilitation

B. Approach:

Suggestions for actions designed to meet patient's specific needs.

One of the most important factors about nursing plans is that they do not become just another routine, where entries are made without meaning because the statement looks good on paper Properly used, they will help all nursing personnel and the patients will benefit from the consistency in our pattern of Nursing Care.

Problem Nursing Care Plan Approach	
Improve manners	Emphasize 'please, thank you'.
Medications (resistance to)	Assist nurse installing meds
Emotional support	in nebulizer. Let him know you
	like him but be as necessary;
	needs affection but shy about
	receiving.

Problem Nursing Care Plan Approach	
Needs good dental care	Needs careful supervision.
Tub bath	Problems because of many Rx.
	Try immed. B-rest time. Some
	can spend some time helping
Rehabilitation	self. Let him accomplish
(Poss. Transfer to nursing	things, e.g., unscrew tooth-
home)	paste, help self out of bed,
	to chair, pull up underpants
Family's non-acceptance of	When family visits (q or qO
condition. Mother had prob-	wknd) Answer questions in
lems accepting and coping	simple terms. Assist mother
with situation.	in preparing him for their
	outings when family visits.

APPENDIX B

Development of Instructional Simulation and Rationale for use Utilizing "Checklist".

Development of the Instructional Simulation and Rationale use utilizing "A Checklist to be Used When Designing Contextual Response Simulations", Teaching Research, Oregon State System of Higher Education, July, 1968.

Items on the checklist considered:

1. What are your broad educational goals or objectives:

   Rationale: The affective domain is emphasized in that an increase in the number of written nursing care plans is the desired result.

2. What are the constraints on the instructional planning:

   Rationale: The developmental time is limited to one academic quarter and the personal financial resources of the developer. The setting for the simulation is four medical-surgical departments of the University of Oregon Medical School Hospital. The instruction will be conducted with the cooperation of the Nursing Service Staff Development Department within the structure of their present staff development program on nursing care plans which includes voluntary participation and a general framework of instructional material and hospital policy. The

participants will be those of the staff in these departments who are involved with giving direct nursing care to patients.

3. What are your specific objectives of the instructional unit you wish to plan that might use simulation?

   Rationale: The objectives are to provide practice in writing nursing care plans, to demonstrate the values of a nursing care plan and to motivate the participant to write nursing care plans.

4. What is the general sequence of these objectives?

   Rationale: a. Motivation
   b. Demonstration
   C. Practice

5. What do you want the student to be able to do with his newly acquired knowledge or skills?

   Rationale: It is proposed that the participants will increase the number of nursing care plans written for the patients receiving their nursing care.

6. What specifically does the student have to know to perform the behaviors listed in 5? What are the enabling objectives?

   Rationale: The participant must have the

ability to:

a. Observe and assess the patient to rule in or out present or potential nursing care problems.

b. Formulate long range and immediate goals for specific patients.

c. Plan nursing actions to accomplish these goals.

d. Record patient response to these actions so that nursing actions may be evaluated and readjusted as necessary.

7. Consider the knowledge and skill components in 5 and 6. For each knowledge or skill component mentioned in 5 and 6, consider the following questions. If you can answer "yes" to one or more, consider simulation rather than lecture-reading methods.

a. Do you wish to provide the learner with experience in all three domains of cognitive, psychomotor and affective objectives?

b. Do you wish to exercise the learner in some skill or the application of previously learned principles?

c. Do you wish to sensitize the student to a learning experience that follows?

d. Are you interested in optimal transfer from the training situation to the operational situation?

e. Do you want to provide a responsive environment which gives learners a sense of immediacy and involvement?

f. Do you wish to provide a situation for practice?

g. Do you wish to make provision for creative responses?

Rationale: The answer is "yes" to all the questions except item c.

If you can answer "yes" to one or more, consider simulation rather than direct experience (training in the operational situation).

a. Is there a high degree of cost or risk to the learner involved in direct experience?

Rationale: No, since these are all nursing personnel who are currently giving direct nursing care.

b. Is there a high degree of cost or risk to individuals or equipment in the operational situation?

Rationale: No.

c. Do you wish to control (speed up or slow down) time?

Rationale: Yes, for purposes of demonstration and practice. A frequent criticism of written nursing care plans is the lack of time to write them.

d. Do you wish to provide a situation for practice or rehearsing responses in controlled, monitored environment?

Rationale: Yes.

e. Is there reason for not using the operational situation for training purposes in terms of scheduling?

Rationale: Nursing care plans are not being written for every patient in the operational setting.

8. What other characteristics must the instructional conditions have to effectively serve its intended training functions?

Rationale: The instructional conditions should try to include an interest provoking environment and opportunity for discussion.

9. On the basis of the above information, consider the instructional unit you wish to develop.

Rationale: An instructional simulation in the form of a Planning Exercise will be used. This is classified as a media oriented simulation.

10. In your simulation do you wish to emphasize:
    a. Competition between learners
    b. Realistic learning environment without competition

    If your answer is a., use a learning game. If your answer is b., consider using a media-oriented simulation.

Checklist for Designing Media-Oriented Simulations

1. What was your purpose?

   Rationale: To increase the number of nursing care plans written by the nursing personnel.

2. What was the specific subject area to be covered in the simulation?

   Rationale: Assessment, planning intervention and evaluation of nursing care are the specific subject areas to be covered with the stated purpose to provide for the individualized care of the patient, to help in setting nursing priorities and to improve communications essential to the continuity of nursing care.

3. What are the requisite knowledges and skills required?

   Rationale: Knowledge of nursing care and the ability to assess and plan for nursing intervention are necessary before a written plan of nursing care can be formulated.

4. What is the required entry behavior of the learners?

   Rationale: The learners are those personnel involved in giving direct nursing care to the patient.

5. What are the important specific operations you wish to exercise?

   Rationale: Writing nursing care plans.

6. What are your specific terminal objectives of the simulation?

   Rationale: To promote an increase in the number of written nursing care plans.

7. What other components in the instructional system besides simulation are required, if any?

   Rationale: A period of discussion to provide for feedback and clarification of information.

8. For the simulation component, what are the task-relevant and task-irrelevant elements in the situation that are involved in the simulation? What of the task-relevant elements are the most crucial? Which task-irrelevant elements will be purposely included in the simulation to enhance transfer?

Rationale:

a. Task-relevant items are assessment and planning for nursing care in written form.

b. Task-irrelevant items are the division of participants into teams which introduce cooperation in that the participants work collectively with each other and a slight element of competition because each team's work is judged by his peers in relation to the other team's product.

9. What stimulus situations are used in the simulation?

   Rationale: Teams.

10. How will the elements be represented in the stimulus situation: by concrete, iconic, analogue, or symbolic representation?

    Rationale: There will be an actual division of the participants into teams.

11. What type of responses were required of the learner: enacted, iconic, analogue, symbolic?

    Rationale: The response is enacted. The participants will write nursing care plans for a hypothetical patient.

12. What kind of feedback is given to the learners?

    Rationale: The teams compare the nursing care plans they write and an opportunity for discussion will be

provided.

13. What contextual variables are important in the simulation: How will they be implemented?

    Rationale: A patient role is introduced in the second round. (Appendix D) The "patient" has specific information which influences radically the nursing care plans and could only be obtained if some member of the team interviews the "patient".

14. What kind of manual is required for the learner? The instructor?

    Rationale: Simple introduction and directions on a sheet of paper. (Appendix D)

15. What particular instructional strategies are used in the simulation exercise, i.e., number of situations, variety of situations, types of prompts?

    Rationale:

    a. Directions to participants for each round.

    b. Because of a limiting time factor there are only two rounds or situations presented. One hour is allowed for the ward conference used for the study.

        (1) Round one includes listening to a taped interview between a nurse and a patient using the first page of the Nursing History Form (Appendix A) suggested for

use by the University of Oregon Medical School Hospital as a guide for the interview.

(2) Round two presented a change in the patient's condition and introduced the patient role.

16. What types of support in the form of machines are required? Are these available?

Rationale: A tape recorder is required and is available in each department.

17. What kind of physical space is required? How will students be introduced to the materials? Will there be a debriefing? How long will each take?

Rationale: The space used will be the regular room in which the nursing personnel hold their ward conferences. There will be a brief introduction, the printed materials are self-explanatory and the Planning Exercise proceeds from that point. Discussion takes place after the end of each round and the entire time should be within a one-hour period.

18. Where and when in the course will you implement the materials?

Rationale: The in-service department plans to continue with the program on nursing care plans.

APPENDIX C

Planning Exercise

Planning Exercise for Developing Nursing Care Plans

Introduction

You are about to participate in a planning exercise which will require you to make planning decisions for the care of a patient. The purpose of this exercise is to demonstrate to you that a nursing care plan can:

1. provide for the individualized care of the patient.
2. help in setting nursing priorities.
3. improve communications essential to the continuity of nursing care.

Instructions

Round I

1. Separate into teams of two or three members.
2. Listen to the tape of a portion of an interview of a nurse obtaining a nursing care history. (Take notes if you wish.)
3. Using the hospital Kardex card provided and the approved method of recording, (pencil, date, initials) each team will formulate a tentative nursing care plan for this patient.
   Time: 10 minutes.

4. Each team will present its plan to the group.
5. Discussion.

Transcription of taped interview of a nurse obtaining a partial nursing care history.

Nurse: Hello, Mrs. Wilson. I've come to get a little information from you so that we can plan your nursing care. Is this correct that your name is Wilson, W-I-L-S-O-N?

Patient: Yes.

Nurse: And your first name is Lyn?

Patient: Yes.

Nurse: L-Y-N?

Patient: Right.

Nurse: How old are you, Mrs. Wilson?

Patient: 35.

Nurse: When were you admitted to the hospital?

Patient: Yesterday at 10.

Nurse: 10 in the morning?

Patient: In the morning?

Nurse: What did the doctor say was the matter with you?

Patient: They think that I have diabetes and they are running some tests.

Nurse: Are you a housewife?

Patient: Yes.

Nurse: How many children do you have?

Patient: Four.

Nurse: What is your religion?

Patient: Christian.

Nurse: Have you ever been hospitalized before?

Patient: Just with the children.

Nurse: Just with the children. You mean when they were delivered. You have had no illnesses or surgeries that required hospitalization?

Patient: Well, I had surgery with one of them. After one of them. But other than that I haven't, no.

Nurse: How old are your children?

Patient: 15, 13, 12 and 10.

Nurse: Now, this surgery which you had was after which child?

Patient: The last one.

Nurse: What type of surgery was it?

Patient: A partial hysterectomy.

Nurse: How long did you stay in the hospital?

Patient: Just three days.

Nurse: Three days after that time you would have stayed?

Patient: No, a total of three days.

Nurse: When you were hospitalized, was there anything in particular about the nursing activities or the hospitalization that bothered you?

Patient: Just the time you have to get up in the morning.

Nurse: What do you mean by that?

Patient: Like 5 o'clock they would wake you up and your day begins. That is the only thing.

Nurse: That is the only thing that bothered you?

Patient: That and being there.

Nurse: Was there anything that you found particularly helpful as far as the nursing activities in the hospital while you were there?

Patient: You mean just anything in particular they did for you?

Nurse: That is right.

Patient: As far as being helpful, I appreciated the back-rubs and things in the evening because it tended to relax you so that you could go to sleep easier. It was hard to go to sleep anyway. That is the most helpful thing I can remember.

Nurse: Do you find it more difficult to sleep in the hospital than to sleep at home?

Patient: Right, I usually lay awake half the night.

Nurse: Do you have any trouble sleeping at home?

Patient: No.

Nurse: Do you have a regular bedtime?

Patient: Not regular, it is around 11 or 11:30. Somewhere in there.

Nurse: Do you ever wake up then?

Patient: No.

Nurse: What time do you get up then, in the morning?

Patient: Oh, it is about 7:30.

Nurse: What type of results do you expect from your tests here in the hospital? Do you have any expectations?

Patient: Well, I really don't know what to expect because they just started taking the tests.

Nurse: Has the doctor told you what type of tests will be done?

Patient: Yes.

Nurse: He said that you were going to have some tests. Do you have any idea what they were going to be?

Patient: Well, he explained some things but I don't know too much about what is going to come off.

Nurse: Are you worried about the tests?

Patient: Yes.

Nurse: In what way?

Patient: Well, I think it is not knowing what to expect.

Nurse: As far as the tests are concerned or what the results will be?

Patient: What the results will be.

Nurse: Do you expect to have visitors while you are here, Mrs. Wilson?

Patient: Hopefully, yes.

Nurse: Do you have any type of visitor that you might feel uncomfortable with?

Patient: No, I don't think so.

Nurse: Your family is going to be able to come up and see you?

Patient: Yes.

Nurse: How about your children? Who is going to be taking care of them while you are gone?

Patient: Well, my mother will be able to for a short time, but not for too long.

Nurse: Does she have them now?

Patient: Yes.

Nurse: They are staying with her. What about school?

Patient: Well, that is the problem. She can't be away from home too long and we'd have to make other arrangements if this continued too long.

Nurse: As long as you are not here too long this is going to be a satisfactory arrangement?

Patient: Yes.

Nurse: Now, let us talk a little bit about your eating habits. What time do you usually have breakfast?

Patient: I don't eat breakfast. Just coffee.

Nurse: How about lunch then?

Patient: I usually have a sandwich.

Nurse: And this is around when?

Patient: Oh, 12 or one o'clock if I'm home.

Nurse: Then how about dinner?

Patient: We usually eat about 5:30 or six o'clock. That is the heavy meal.

Nurse: This includes meat and potatoes and vegetables and the usual thing. Do you have snacks then?

Patient: Oh, maybe in the late afternoon around four o'clock. I have something then.

Nurse: What do you mean by something?

Patient: Oh, an orange or a half a sandwich or whatever I get real hungry for.

Nurse: Do you have any foods that you particularly like or dislike?

Patient: There are some vegetables that I really dislike.

Nurse: What are these?

Patient: Like asparagus, broccoli and spinach. But other than that I like just about everything else.

Nurse: How about something that you might drink, coffee, tea or milk. Is there anything that you particularly dislike?

Patient: I dislike milk. I like coffee or tea.

Nurse: But you don't mind cream soups that have milk in them?

Patient: No, anything that is cooked with milk is fine, but just to drink milk, no.

Round II

Mrs. Wilson has now completed her tests which indicate she has Diabetes. She is receiving Insulin, has a Diabetic diet and is testing her own urine three times a day.

Her hospitalization has been uneventful and her diabetic condition seems well regulated. She has a large bunion on her right foot which the doctors would like to treat surgically before her discharge. A bunionectomy is planned for tomorrow.

1. Revise your nursing care plan.

   Time: 10 minutes.

2. Since the patient is always the ultimate source of information, _____ will act as the patient. You may consult with her if you feel it necessary to clarify some point in your plan.

3. Plans will again be presented to the group.

4. Discussion.

Patient Role

Participant acting as the patient will answer with the following information about herself only if asked directly. She will not volunteer information. All other responses will be the same as on the tape.

Complaints

Right large toe is very painful. She has ingrown nails.

Results of tests

Has not understood explanations of tests results and has no knowledge of Diabetes.

Children

Is worried about children. Her hospital stay is longer than anticipated and grandmother must return to her own home. The family cannot afford household help and the husband's job requires that he be out of town two nights a week.

APPENDIX D

Questionnaire

QUESTIONNAIRE

In order to obtain some additional information about the participants in this study, would you please fill out the following questionnaire. Do not sign your name. Place the completed form in the envelope provided and leave it at the chart desk. The envelopes will be picked up on Monday.

1. Age

under 20	_____
20 - 24	_____
25 - 29	_____
30 - 34	_____
35 - 39	_____
40 - 44	_____
45 - 49	_____
over 50	_____

2. Preparation for Nursing

Licensed Practical Nurse	_____
Associate Degree	_____
Diploma	_____
Baccalaureate Degree	_____
Post-graduate Degree	_____
No Answer	_____

3. Nursing Experience

under 1 year	_____
1 - 4 years	_____
5 - 9 years	_____
10 - 14 years	_____
15 - 19 years	_____
over 20 years	_____

4. Were you aware of written nursing care plans before this class?

Yes _____ No _____

5. Do you think written nursing care plans should be used in this hospital?

Yes _____ No _____

APPENDIX E

Summary of Responses to Questionnaire

QUESTIONNAIRE

In order to obtain some additional information about the participants in this study, would you please fill out the following questionnaire. Do not sign your name. Place the completed form in the envelope provided and leave it at the chart desk. The envelopes will be picked up on Monday.

1. Age

under 20	
20 - 24	8
25 - 29	3
30 - 34	1
35 - 39	
40 - 44	1
45 - 49	2
over 50	3

2. Preparation for Nursing

Licensed Practical Nurse	6
Associate Degree	
Diploma	8
Baccalaureate Degree	2
Post-graduate Degree	
No answer	2

3. Nursing Experience

under 1 year	6
1 - 4 years	6
5 - 9 years	2
10 - 14 years	1
15 - 19 years	2
over 20 years	1

4. Were you aware of written nursing care plans before this class?

Yes 18 No ____

5. Do you think written nursing care plans should be used in this hospital?

Yes 17 No 1

APPENDIX F

Data Collected

Number of Written Nursing Care Plans

Department A - Instructional Simulation with Previous In-service Classes

	Before Class	Weeks after class 1	2	3	4
Patient Census	25	23	29	27	27
Written nursing care plans	8	14	10	8	4

Department B - Lecture-Discussion class with Previous In-service Classes

	Before Class	Weeks after class 1	2	3	4
Patient Census	25	23	26	24	22
Written nursing care plans	6	6	13	12	7

Department C - Instructional Simulation with no Previous In-service Classes

	Before Class	Weeks after class 1	2	3	4
Patient Census	26	22	20	23	15
Written nursing care plans	13	11	14	15	10

Department D - Lecture-Discussion class with no Previous In-service Classes

	Before Class	Weeks after class 1	2	3	4
Patient Census	16	25	19	15	19
Written nursing care plans	5	4	1	4	2

Typed by

Mrs. Alice W. Holberg

AN ABSTRACT OF THE THESIS OF

DOROTHY D. GUSTAFSON

For the MASTER OF SCIENCE in NURSING EDUCATION

Date of receiving this degree: June 11, 1971

Title: A STUDY OF THE INFLUENCE OF INSTRUCTIONAL SIMULATION ON THE NUMBER OF NURSING CARE PLANS.

Approved: [redacted]

The purpose of this study was an attempt to determine whether instructional simulation could serve as a process for effecting change in behavior. The basis for determining change in behavior was an ennumeration of written nursing care plans found in the Kardex.

The study was conducted in four medical-surgical departments of a University Hospital. Data were collected by counting the number of nursing care plans in these departments before and after conducting classes on written nursing care plans. Those attending the classes were hospital personnel who were giving direct nursing care to the patient.

Two methods of instruction were used in the classes. One was the traditional lecture-discussion method and the other was instructional simulation.

Because of the student nurses assigned to the departments and the lack of identification of author on the nursing care plans it was impossible to determine if those on the staff who were participating in the classes were influenced by the classes or if there was any change in behavior at all.

Conclusions

No generalizations can be made on the basis of this study due to the small number of personnel participating and the difficulty in identifying who wrote the nursing care plans and when they were written.

It was obvious during each of the lecture-discussion sessions that there was a great deal of emotion involved with writing nursing care plans. The overall attitude seemed to be that this was an additional responsibility with dubious benefits to the patient.

There appeared to be a greater immediate increase in written nursing care plans when the instructional simulation followed previous classes in written nursing care plans. Nursing care plans were not a new concept to any of the participants and there was no expectation that one class, whether it was the initial one or one in a series would produce any sustained increase in the number of written nursing care plans.

The study did show that it was possible to devise an instructional simulation in the form of a planning exercise that could be used in a nursing situation. The instructional simulation classes differed from the lecture-discussion classes in that the entire group participated

actively in the sessions. The need for providing individualized patient care and improvement of communication were demonstrated by the class members themselves.

Recommendations for Further Study

1. Replicate the study using a larger population in hospitals without nursing students or on units without nursing students who were considered to be pre-conditioned to the use of written nursing care plans. More attention should be given to the variables of age, professional nursing education and nursing experience with the provision for a method of identifying when the nursing care plans were written and by whom.
2. Survey the attitudes of personnel giving direct nursing care to the patient towards the written nursing care plan by personal interview or questionnaire.
3. Using formulated criteria for quality nursing care, investigate the effects of written nursing care plans on the quality of patient care.
4. Study the effectiveness of self-initiated departmental in-service programs as compared to in-service programs directed and conducted by a separate staff.