

THE OPINIONS OF THIRTY TWO SELECTED OPERATING ROOM
SUPERVISORS REGARDING THE INSTRUCTION
OF THE PROFESSIONAL NURSE
IN OPERATING ROOM NURSING

by

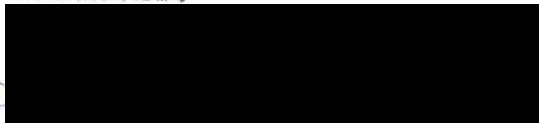
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CHAPTER I
INTRODUCTION

Introduction to the Problem

For the past decade, there has been extensive increase in knowledge in all scientific endeavor. This has had a tremendous impact on health fields. One result has been the rising demand for nurses in all areas of health service.

The nursing profession has been challenged to self-evaluation, which necessitates exploration, analysis and reconstruction of nursing objectives and their implementation. In attempting to improve the quality of educational programs, the schools of nursing have subjected themselves to intense scrutiny. Sounder education of the student nurse has resulted from creative teaching and the use of new patterns of assignment to nursing practice.

Among the adjustments in the curricula of schools of nursing has been the elimination, reduction or reorganization of instruction and experience in operating room nursing. Emphasis has been directed toward developing understanding of the needs of the patient during the operative procedure and an awareness of the principles and practices of asepsis as important factors basic to all areas of patient care.

The student has been given opportunity to observe patient's needs and assist with care given by the operating team during surgical intervention under anaesthesia. These observations reinforce previous learning of preoperative and postoperative care. Experiences are designed to assist the student nurse to develop concepts of the psychological and physical needs of the patient throughout the whole surgical regime.

The limited time spent in the operating room and the lack of repetitive experiences may not permit the student to acquire more than a cursory knowledge of operating room nursing. The complex care practiced in the operating room demands specific abilities and skills not gained in general nursing.

(29) (10)

The basic professional program in schools of nursing aims to prepare the nurse to practice first level nursing. It has not been a goal of the basic program to create specialists. This has been considered the objective of the Master's programs in nursing. (25) (6)

In Nursing Outlook, July 1960, Vernita Cantlin stated, "Operating room nursing is a professional speciality." Specialization in a given area has been developed only after the learner has acquired broad general knowledge. (6) (19) Specialization requires additional knowledge pertinent to a specific area. Cantlin has said preparation for operating room nursing is not being met by the present curricula of basic schools of

nursing. (7)

There exists an ever increasing shortage of expert, experienced, operating room nurses. (36) This shortage is due to demands from both civilian and military sources, and, according to Herman Finer, to the increased population, the rise in standards of medical care desired, the progress in the treatment of the aged and new medical techniques. (19)

Statement of the Problem

The use of surgical technicians has been steadily increasing since World War II. The advent of the technician has been one answer to the shortage of professional nurses. This is only a partial solution. The technician cannot function in the same capacity as the professional nurse with broader knowledge of related subjects. The technician performs certain technical tasks and needs instruction and supervision on the job. The staffing of the operating room has been complicated further by the change in basic programs of schools of nursing. The new graduate is not prepared to perform capably in the operating room without further instruction.

The nurse, who is presently employed in the operating room, is responsible for giving patient care, providing assistance to the surgeon, supervising and guiding technicians and maintaining a safe environment for the patient and staff.

No accredited supplementary or graduate course in operating room nursing has been established. (42)

Each hospital operating room supervisor has been made responsible for instruction of new personnel. No academic preparation in teaching has been required of the supervisor. The situation has involved instruction adjusted to each individual according to her basic preparation; with each new employee, the orientation and instruction is repeated.

Purpose of the Study

It is the purpose of this study to investigate the instruction in operating room nursing, planned for the newly employed professional nurse, who has had no experience or preparation in this phase of nursing beyond that received in the basic program.

The study was designed to determine:

1. if the content and/or method of instruction was similar among the respondents,
2. if the allotted time for special instruction varied between institutions,
3. if the instruction plan varied according to hospital size and/or academic preparation of supervisor,
4. if the person responsible for implementing teaching plans varied according to size of institution and/or academic background of operating room supervisor,
5. if supervisors had any preference for graduates of either degree or diploma basic program, and
6. if the supervisors believed an additional course of instruction beyond basic program would be desirable.

Limitations

The study was limited to data obtained by mailed questionnaire, submitted to 32 operating room supervisors of 16 small and 16 large hospitals in Oregon. The findings, conclusions, and recommendations relate only to the time, setting and population from which data were obtained.

Assumptions

For purposes of this study, it is assumed that:

1. operating room nursing serves a pertinent and unique function in the care of the surgical patient, hence merits study.
2. the data-collecting tool is adequate in eliciting the desired information.
3. each supervisor has the experience and preparation to qualify her to respond to the questionnaire in such fashion as not to distort the data.
4. a period of instruction in operating room nursing is needed by the newly employed nurse.

Significance of the Problem

The professional nurse applicants for staff positions in the operating room have varied educational preparation in operating room nursing. Some schools of nursing have omitted operating room nursing from their programs; some have made it an observational experience. Others have incorporated observation with limited supervised practice. The traditional pattern of daily supervised practice and instruction approximating forty hours per week over an eight week period persists

in some schools.

The surgeons have made known their feelings concerning the present staffing situation. Although they have conceded the necessity for the use of the technician, they have also bemoaned the loss of experienced operating room nurses.

(13) (30)

The initial responsibility for the nursing instruction of the newly employed professional nurse has been assumed by the supervisor. She may be limited in her opportunities to instruct the new graduate by demands of administration, teaching or supportive needs of other personnel and/or by her own lack of academic preparation for teaching. She may need to delegate teaching to other members of her staff. They frequently are responsible for giving tutorial-type instruction to the new employee while involved with giving patient care, assisting the surgeon, supervising other personnel or carrying out procedures to ensure a safe environment for the patient.

For the new employee to become a proficient operating room nurse, she will need to develop understanding and skill in indirect and direct patient care, interpersonal relations and medico-legal facts beyond those acquired in basic nursing programs. It is important that time be allowed for the nurse to perfect basic nursing skills and to acquire additional knowledge and skill which will enable her to function effectively in the operating room.

Procedure for Solution

Source of Data: The primary source of data was the information obtained from the mailed questionnaire sent to 40 operating room supervisors in Oregon. Thirty-two responded to the questionnaire. The sample was selected arbitrarily to include those operating room supervisors employed in hospitals of varying size and location. Hospitals from metropolitan, suburban and rural areas were included as the problems could differ according to the locations of the hospitals.

The secondary source of data was obtained from a review of the literature and related studies.

Procedure used in the collection of data:

1. Formulated statement of the problem and purposes of the study.
2. Constructed the questionnaire. Each item was directed toward eliciting information that contributed toward achieving the purposes of the study.
3. The sample population for the study was selected arbitrarily.
4. Validation of the tool was accomplished by administration to a selected group of professional nurses who were familiar with operating room nursing. They were asked to consider the tool from the following viewpoints: clarity, appropriateness, and possible achievement of the goal through the questionnaire. Their responses were tabulated and necessary revisions made.
5. The questionnaire and accompanying cover letter were mailed to the participants. A stamped, self-addressed envelope was included for response.

6. Findings were tabulated and interpreted; summary made of the data; conclusions were drawn and recommendations were made for further study.

Definition of Terms

For the purpose of this study the following terminology has been accepted:

Operating room nursing: the practice of nursing which includes the nursing care of the patient who is in the process of sustaining a surgical intervention and/or examination for treatment or diagnosis; and which involves not only the care of the patient in the operating room but include to some degree the responsibilities for a smoothly functioning team to assist the surgeon and the maintenance of an environment conducive to the safety of patient and personnel.(54)

Overview of the Study

This study has been divided into four chapters. Chapter One has consisted of the introduction, statement of the problem, purposes of the study, limitations, assumptions, and steps in the solution of the problem. Chapter Two will review the literature and related studies. Chapter Three describes the study, tabulates and interprets the findings. Chapter Four presents the summary, conclusions and recommendations for further study.

CHAPTER II
REVIEW OF THE LITERATURE AND RELATED STUDIES

Introduction

Our American society assumes every individual should be eligible to receive adequate medical attention. This has resulted in need for additional facilities and personnel to meet the health demands. The rising standard of education and society's expectations of those who function in these various endeavors have presented nursing with the serious problem of supplying qualified nurses. (41)

The nursing profession has been unable to meet the demands; a shortage of qualified professional nurses persists. In a report published by the American Journal of Nursing, November 1962, directors of nursing service were asked to share their views on staffing problems. One of the major difficulties was the "staffing of such specialty units as obstetrics, pediatrics, and operating room". (44)

Herman Finer, Administration and Nursing Service, has discussed these same problems. Concerning the consequences of numerical shortage of personnel, he has cautioned in the following terms. If numbers (quantity) are not attainable, then pressure is placed on quality of scarce personnel.

The number of people bear relationship to time and energy needed to care for patients. Fewer people take longer time and more energy is required. There is danger to patient of nurse energy loss as she approaches exhaustion, irritability, impatience with self and lack of satisfaction in her work. It is uneconomical to have too few nurses in relation to quality and standard of work. (19)

An article from Surgery, Gynecology and Obstetrics, April 1961, by Dr. Geza de Takats, described an operating room situation in which there appeared to be lack of interested, qualified professional personnel. He maintained that this was no exaggeration or an uncommon situation. He used the illustration to show the "growing disruption of the surgical teamwork, to trace the causes of the development, and to suggest improvements". He mentioned the increase in number of operating room and of operations, the more intensive use of operating room space and more extensive surgery with a demand for more nursing preoperatively. As a solution to the nurse shortage, Dr. de Takats suggested the establishment of a trade course for operating room technicians with standardized training, licensure and with dignified secure status. (13)

Technicians have been used in the operating room for some time. The training has been individualized, according to adaptability and intelligence of the technician. (15)

This may have added more personnel to the operating room, but

it has placed additional responsibilities on the professional nurse for the training, supervision and guidance of the technician. Dr. Elliott Hurwitt, chief of surgery division, Montefiore Hospital, New York, indicated in 1954, that the nurse's position was strengthened by technician supplementation. He believed this step would free nurses of some menial tasks and permit them to function in a manner more commensurate with their education and ability. (48)

R.N., September-October 1961, reported on an institute for operating room nurses held in San Diego, California in June 1961, at which time Dr. Herbert W. Meyers was the keynote speaker. He commented that surgery was one of the most important professions in our civilization and that operating room nursing was one of the most vital specialities of the nursing profession. He emphasized the growing complexity of surgery and the demand for greater nursing care before, during and after surgical intervention. Dr. Meyers expressed regret over the loss from the operating table of former "highly trained, alert, quick thinking instrument nurses". They have become the circulating nurses, supervisors, or instructors. He commended the profession on the recognition of a serious situation and for recruitment and training of surgical technicians. He further emphasized the need for constant supervision of personnel and the responsibility of the nurse for the patient care and operating room team-work. His concern for the quality of

technicians was expressed by these comments:

These nurses will have to train the surgical technicians of the future. If competent teachers are not available, the training of these technicians will be sad indeed.

He encouraged the profession to maintain a continuing supply of graduate nurses qualified to teach technicians and other personnel in the operating room. (30)

Carolyn Rogers, O.R. Nursing, January-February 1962, stated that the primary objectives of operating room nurses were concerned with:

the safety and welfare of the patient,
the equanimity of the surgeon,
the ensuring of harmonious teamwork of a group of individuals.

Since anticipation of the surgeon's needs is a challenge which differs with each patient, the scrub nurse has the right to concentrate on her patient and surgeon's requirements. The nurse should not "have to combine the role of clinical instructor with that of staff nurse under ordinary circumstances". (35)

The combination of such activities would be detrimental to the care of the patient and to surgeon assistance. The newcomer should be given a thorough orientation; for a person without previous operating room experience, the course should be more detailed. The possibility for confusion and discouragement existed when the new nurse was instructed by different nurses. Explanations to new employee should come from supervisor, head nurse or a nurse specifically assigned to the teaching. (33)

Vernita Cantlin, Nursing Outlook, July 1960, indicated that too few operating room nurses had expressed themselves concerning educational advances, patient-centered care or the consequences of nurse promotion in the operating room. Frequently good operating room staff nurses have been promoted to supervisory positions when they are inadequately prepared for administration and teaching. Their frustrations and inability to function effectively will affect the other personnel. Their attitude may become authoritarian or resigned. The morale of the staff will become low; they will lose interest and may become careless and unhappy. The chain reaction results in confusion and lack of cooperation within the operating room. (7)

de Takats and Meyers have reflected the concern of the surgeon about the gradual dwindling of professional nurses in the operating room suite. (13) (30) Cantlin described the distress of the supervisors, who must assume responsibility for the care of a number of patients, assisted by too few properly prepared nurses. (10) Nurses have expressed dissatisfaction with the amount of their instruction and have indicated desire for further preparation for their responsibilities. These nurses must give patient care, assist the surgeon, supervise and guide auxiliary personnel and newly employed nurses, and perform the myriad tasks required for the preparation and maintenance of a safe environment for patient and staff. (1) (7) (48)

According to Babcock, the operating room has been described as a potentially hazardous area and one in which constant vigilance is needed to ensure safety for patient and staff. (2) Owens, Terenzio, Cantlin and de Takats have indicated that the staffing problem has developed into one of medico-legal concern for both the medical and nursing profession. (32) (39) (7) (13)

Change in Student Program

Recent developments in nursing education have resulted in drastic changes in student programs. The period of education has been shortened and better organized. (6) (19) Emphasis has been placed on more creative, varied methods of teaching.

A result of these developments, has been misunderstanding and confusion between personnel engaged in nursing service and those in nursing education. One difference between them was concerned with the amount of knowledge and extent of ability possessed by the nurse at the time of graduation from the basic program. During fifteen regional conferences on nursing education, held in 1960, under the auspices of the National League for Nursing, discussions were focused on problems related to clinical learning fields.

Nursing service personnel described the professional nurse as one who "must be a skilled practitioner, function with a minimum of supervision, have judgmental skills that go beyond evaluation of individual patients needs and have managerial skills to direct and work with others". (16)

They questioned whether present curricula could prepare nurses to meet these requirements. Nurse educators explained that the goal of the student program should be to assist the student to develop newer concepts of nursing and acquire a foundation of knowledge and skills on which to build. They further indicated only a certain amount of education could be squeezed into the program, and that maturation, through living, must occur before young people can assume leadership responsibilities. There existed a responsibility of nursing service to assist the nurse in continued professional growth after graduation. During discussions, it developed that some resource persons concurred in this latter thought. The establishment of inservice education programs was suggested as a possible solution. A further finding of the conferences was a lack of sufficient communication between service and education personnel- a feeling they no longer spoke the same language. Service personnel felt "left out" and were not aware of objectives of student experiences or changes that had been made. The conferences, in exposing these problems, accomplished a great deal in clarifying some of the confusion and misconceptions. The result was a common goal of better understanding and improved communications between these two equally important groups involved with patient care. (16)

Similar opinions may be found in the literature regarding operating room nursing. Operating room nurses have felt

forgotten or ignored when plans for operating room rotation were changed. They have deplored the reduction of student operating room experience. They have asked educators from what source are future operating room nurses to come. (3) (48) (36) They have expressed understanding that the basic program is not involved with the preparation of specialists in nursing. This still has not given them the answers. It has been stated that the Masters program is the area in which nursing must expect the preparation for "clinical specialization, supervision, teaching, administration and research." (25) Operating room, until recently, has been considered a part of all basic programs. It is the belief of many nurses that due to the elimination and severe reduction of operating room nursing experience in student program, the nurse at time of graduation is not able to practice operating room nursing. The student may be a good candidate for nursing in this field but she will have only a slight awareness of many of the phases of operating room nursing. (7) (29) (1) The number of schools maintaining the extended practice time is decreasing and according to future goals in nursing may eventually be replaced. (38) In Curriculum Development, Amy Frances Brown has suggested a four week span of time in operating room during the junior year. (6)

In expressing her concern over the changes made in time and emphasis, Laura Allen conjectured changes in operating

room rotation were based on unsatisfactory experiences of those planning the curricula. (1) She indicated these experiences might have occurred at a time when the emphasis was on aseptic technique and dexterity in passing instruments. Perhaps students had been used for preparing supplies or other mundane daily duties in an operating room. The operating room nurses in their own self-searching have wondered these things. Is the operating room of so little value that it can be eliminated? Is the fault within the ranks of operating room nurses; have they failed to make this specialty an essential and valuable experience? Are these factors related to nurses decisions about operating room? (1) (7) (36)

The influence of students' experiences in the operating room upon their decisions to return to the operating room after graduation, was presented by Colonel Agnes A. Maley at the Army Nurse Corps Fourth National Congress of Operating Room Nurses, Los Angeles, California, 1957. She stated that the relationship between students and operating room nurses, supervisors and instructors was a determining factor in students' decisions. If the staff were interested and guided students, the experience was meaningful to them. If the staff were overworked or not prepared for their responsibilities, the students' experiences were limited. The individual student's adjustment and the number of students receiving their experience at one time were also indicated as pertinent

to their choice. These additional comments seem to be consistent with those expressed by Cantlin and Allen.

Thus it is difficult to set a time table on clinical experience in the operating room because the school environment varies.

The experience must be looked upon as being primarily an orientation phase, not one which prepares the student nurse to function as an effective operating room nurse upon completion of her basic program. (29)

Colonel Maley said the amount of time spent by the student in the area was not as important as the manner in which it was spent. The clinical experience, in keeping with its purpose, should assist in enabling the student to understand the total nursing care of the patient. (29)

Concerning student experience, Barbara Gruendemann, an instructor in operating room nursing, indicated "the primary objective should be related to the contribution the operating room staff makes to the welfare of the surgical patient during his total hospitalization and convalescence." Other goals included learning, basic aseptic technique, essential in all areas of nursing, increased understanding of the applications of scientific principles and development of understanding of surgical teamwork. The author said that through such experiences, students would gain deeper awareness and concepts than if they had not had these experiences. (22)

Cantlin agreed with the goals of the present plans for

operating room student rotation in emphasizing continuity of patient care. She questioned the wisdom of substituting this kind of experience for operating room nursing. An additional point she wished to make was the difference in feeling of the new graduate as she entered the ward with a certain amount of self confidence in her ability to function compared to those of the new operating room nurse.

She often has no confidence in her ability to function, and little background preparation to help her. She has no feelings of security and the regular staff cannot assume that she has the technical competence she needs; if they do, and she makes a mistake, the loss of life may be the result.

This new graduate often feels inferior to the trained technician no matter what her competency. Such a situation can be, and often is, traumatic. In some instances the technicians have concluded that they were just as good, and even better than the nurses. This would not, and could not, occur if the professional nurses had been properly oriented and trained. (7)

Responsibilities of the Operating Room Nurse

The nurse after graduation from a basic or general nursing program must learn to apply the same principles and the skills to nursing in the operating room as she did in the ward situation. Her professional responsibilities cover her own actions as well as those under her guidance. The operating room nurse has found increasing opportunities in patient contacts. With the advent of newer techniques in anaesthesia administration, the nurse often finds the patient less sedated or even awake by use

of local anaesthesia or analgesia. Her supportive role to the patient has increased. The period just prior to and during induction of anaesthesia has been known to be a time of great stress to the patient. The importance of this phase in the patient's care has been enforced by Barbara Gruendemann, Nursing Outlook, February 1963. She emphasized the nursing opportunities and responsibilities in the continual care of the sedated patient--the reassurance, the protective care and importance to the patient of the nonverbal communications. (22)

The increased alertness and judgment essential to operating room care has been reinforced by several operating room authorities. In addition to valuable and supportive care to the patient, the operating room nurse has been challenged to continuing improvement in concepts and actions related to interpersonal relations with staff members and the important verbal and nonverbal communication methods. With the additional auxiliary staff, the nurse's knowledge of group dynamics and individual behavior has become more essential. The new techniques in anaesthesia and in surgical procedures have required learning new skills. Scientific advances in other areas have brought newer methods of sterilization and disinfection with reinforcement and clarification of the old. The continual threat of sepsis and the prevention of it's transmission has stimulated changes and demanded more knowledge, ability, skill and judgment from the operating room nurse. (30) (48) (32) (7)

The medico-legal aspects of operating room nursing have been presented as a reminder to nurses of the possible hazards in this area, by Evelyn J. Owens, American Journal of Nursing, February 1963, and supported by Terenzio, Babcock and Cantlin. (39) (2) (7) Other opinions expressed in the literature have supported these authors. Dr. Carl A.B. Moyer, professor of surgery and head of the department, Washington University School of Medicine, St. Louis, presented the following thought as panel member on the nurses program at the sectional meeting of the American College of Surgeons, St. Louis, March 1959.

The nurse is the only one person who can watch the whole operating room situation. She is responsible for operating room conduct and her duty is equal in importance to that of the surgeon and anaesthetist. (21)

As a panelist at the Seventh National Congress of Operating Room Nurses 1960, Eleanor Lambertson had stated:

In terms of the therapeutic and non-therapeutic services, I think the role of the nurse in the operating room is going to be working with and through others to assist the surgeon The operating room nurse will have an increasingly large administrative role, but I believe there will still be a need for a particular kind of scrub nurse to assist the surgeon doing newer types of radical surgery particularly where there are no interns or residents. (45)

In reviewing the responsibilities of the operating room nurse, it has become evident that in addition to her preparation in general nursing, she must acquire knowledge, understanding, abilities and skills pertaining to operating room nursing beyond those received at basic level.

She must also be prepared in principles of administration and teaching. (29)

Instruction of the Professional Nurse

In Operating Room Nursing

The need for all nurses to have continual education in a clinical area has been established in the literature. The learner must evidence a desire for knowledge. This request for help from operating room nurses has been recorded by the presentation of a transcript of a question-answer session during an operating room problem clinic in 1955 in O.R. Yearbook.

- Q. Is there a desire and a need for additional post graduate courses in operating room management throughout the country?
- A. (Capt. Margaret J. Whitton, Army Nurse Corp. U.S. Army Hospital, Fort Leonard Wood, Mo. . . . In the army, we do have a tremendous program for the army personnel who desire operating room work.
- A. (Anne Campbell, Director of nurses, Barnes Hospital, St. Louis) According to the number of inquiries that come to our graduate program at Washington University, I would say "Yes". I think there are many nurses who are interested in more post graduate work in the operating room. We do not have such a course and I think it's difficult to find one throughout the country.
- Q. If a student wishes to continue in operating room, how do you advise her?
- A. (Sarah Marks Glidden, Operating Room Instructor, Lincoln Hospital, New York.)
I advise her to take a post graduate training course at a hospital that offers an advanced course in operating room technique.
- Q. Is there some place we can write for post graduate courses in operating room technique?
I wrote National League for Nursing twice and got no answer.

- A. (Margaret C. Griffin, Assistant Director of Department of Hospital Nursing, National League for Nursing.) The League does not have a list of post graduate courses in all specialties, because up until this point, there has been no means set up for evaluating the program. The league does not feel it can take the responsibility of giving lists of programs it has not been able to evaluate. Your safest bet is to look for post graduate courses in connection with university programs. (49)

According to Facts About Nursing, 1961, there are still no programs listed for clinical specialization in operating room. (42)

Repeated comments have been recorded related to the education, training or instruction of the professional nurse in the operating room. Paul Figors and Charles Myers in Personnel Administration indicate that induction or orientation (1) provides the new employee with information about organizational policies and regulations; instructs him in requirements for his specific job to enable him to meet certain standards of performance and increase his value to the company organization; (3) enables the employee to acquire increased skill, (4) results in fewer accidents, or fewer mistakes, (5) reduces dissatisfaction, absenteeism and turnover of employees. The authors mentioned that these objectives cannot be realized unless the "chief executive is convinced of the importance of systematic training" and unless the "employees themselves believe that they will benefit". The necessity for employees to "want to learn" and the supervisors to "want to teach" was

emphasized. The need for and the influence of managerial or administrative training in maintaining an effective program was stated. The responsibility of the supervisor or a specially assigned person was indicated for the teaching. (34) Referring some of these principles to the operating room, the methods used in nursing for orientation and continuing education have been found to be a course sponsored by a hospital or school, on-the-job training, institutes or conferences, or inservice education. As the authors have indicated, no organization has the choice of instructing or not instructing. The choice has been the method to be used, haphazard or carefully planned and systematic. (34)

Inservice education programs have been said to have as their primary objective improved patient care in the clinical areas. According to Helen Murphy Donovan, an authority in nursing service administration, the importance of the program is the better preparation of the nurse with resulting job satisfaction and the prevention of turnover and absenteeism of employees. The program may be set up to deal with the nurse's feelings of inadequacy and to strengthen her professionally. Donovan suggested the removal of non-nurse jobs and filling the vacuum with education for personal and professional growth. Her suggestions would require knowledge of administration and teaching. (14) According to Cantlin, operating room supervisors have rarely had this opportunity.

Donovan's suggestion would indicate improving already established skills and dealing with problems met daily in care of the patient. She has noted impediments to such a plan. The program might be regarded as an additional burden on an "already overburdened staff". There may be a lack of recognition that people are concerned about their jobs, establishment of the program because it was considered the thing to do and frustration because people were unaware of what was expected from them. (14)

Mary Annice Miller, Nursing Outlook, December 1962, indicated some question as to the use of inservice program to assist new graduates to acquire the additional knowledge and skills required in a clinical area. (31) In the report of the Consultant Group on Nursing established by the Surgeon General to investigate nursing education in the United States, it was recommended that the "Traineeship program be expanded to permit the training of clinical specialists". (43)

Mary E. Brackett and Joan R. Fogt, in New Methods in Nursing, Education, Administration, referred to the practice of comprehensive nursing. Comprehensive care cannot be performed by rote: it requires intelligence, thoughtful planning, judgment, initiative, selectivity and observational skill to plan individualized patient care. Considering the problem of the complexity of present day nursing, the authors hoped that "programs for clinical nursing specialist will

thrive and that employment of these persons in a staff relationship, relieved of administrative duties, will be accepted by nursing service". (5)

"Operating room nursing in the Army Medical Services is considered a nursing specialty that requires additional preparation beyond the basic program. However the problems of basic operating room nursing education are universal". (29)

Dr. Carl A. B. Moyer felt there had been a definite remission in not building an educational program for graduates. He stated that the operating room nurse's education as an indispensable part of the operating room must be at a professional level and not at "ordinary work level". He further indicated that if nursing schools could not undertake this responsibility, the medical schools must. (17)

This survey has revealed a need and a desire of professional nurses to improve themselves personally and professionally in the clinical specialty of operating room nursing. With the exception of the programs within the United States Military Services, a lack of professionally approved operating room nursing programs has been shown. (42) (29)

Review of Related Studies

This summary of findings from Ina T. E. Mahon's Study of Trends in Nursing Education in the United States as Indicated in Selected Professional Nursing Literature from 1950 through 1955 is reported as abstracted in Nursing Research.

Literature selected shows trends toward promotion of educational program for all nursing personnel, long range planning for improved education, improvement of educational programs through accreditation, advanced preparation of nurses, research. (58)

The need for better nurse preparation in aseptic principles and practices was revealed in an activity analysis by Reiho Nagumo in Evaluation of Aseptic Technique as Practiced by Nurses on Surgical Units, also reported in abstract form in Nursing Research. The author stated that no nurse performed without violation and that the mean for technique breaks was 6.15. In using time of employment as a variable, she noted the mean of those employed less than ten months was 5.7 and for those over ten months 6.6. (60) This lack of asepsis, an essential to safe patient care, was supported in Vernita Cantlin's Survey and Evaluation of Selected Practices and Techniques Used by Operating Room Personnel, printed in summary in Nursing Research.

Data shows inconsistencies in practice and variations in aseptic techniques from one surgical area to another in a hospital as well as between hospitals; variations in amount of pressure and exposure time for sterilizing sterile supplies, in chemical disinfection agents used, in sterility testing, and in skin preparation for surgery. (52)

Negative feelings about operating room nursing and the causative factors were presented in a study concerned with the shortage of operating room nurses. Another summarized study in Nursing Research was Mary Swartz's Why Not More Operating Room Nurses? An Investigative Opinion Study Based on Interviews of

28 Selected Graduate Nurses at the University of California, Los Angeles. All of the participants had been assigned to operating room nursing during their student rotation. "71% of the non-operating room nurses and 50% of former operating room nurses stated they would not accept a position" in the operating room except in an emergency. The dissuasive factors related to their student experiences and were listed as "low patient contact, temperamental personnel, and high tension." (61) These items were consistent with Cantlin's.

Several studies have been done in an attempt to evaluate student experiences in operating room. They have presented both positive and negative aspects. Shirley Burt's Investigative Study of an Operating Room Clinical Experience Program in X Hospital School of Nursing reported these findings:

Not all areas of experience used as part of student experience program; considerable portion of student's total time spent in repetitive learning situations and activities not directly concerned with patient care; most of personnel emphasized technical performance . . .

The study related to the one hospital investigated. (51)

Helen Lipinski's Patterns of Clinical Instruction in the Operating Room for Nursing Students in Collegiate Schools of Nursing summarized as follows:

66 percent of collegiate schools fully accredited by National League for Nursing for 1958 participated, operating room experience planned as unit of medical surgical nursing, . . . total nursing care given preoperatively, operatively and post-operatively, supervised by clinical instructor. (57)

To obtain an additional evaluation, the students have been polled for their opinions about their operating room rotations.

Sister Justine Geckle's Opinions of Senior Basic Nursing Students Regarding Learning Experiences in Operating Room Nursing reported these student beliefs.

Experience in operating room nursing is necessary and valuable, should be concurrent with medical and surgical nursing courses, . . . improves students' understanding of principles of aseptic technique, total nursing care of surgical patient, human anatomy and fosters development of self confidence, foresight, initiative, personal responsibility and ability to cooperate with others. (53)

Many of these same findings were reported in Sister Anastasia Valmont's Students' Evaluation of their Experiences in Operating Room Nursing. She also reported students' suggestions to enhance the experience. These were "increased opportunities to discuss problems and relate experience to pre and post-operative nursing care and longer time in the operating room." (62)

In an unpublished thesis of June 1961, Olga Keesling reported The Opinions of Sixty Four Student Nurses Concerning the Value of their Operating Room Experience. Questionnaire were administered to students of seven schools of nursing. They were asked to indicate the comparative value to the student of experiences in the operating room. The findings showed high agreement that experiences involving student participation in patient care team seemed to be of most value and were most

enjoyed by the students. Those considered of least value and less enjoyed by the participants were those experiences taking them out of patient contact - the so called "housekeeping duties." (54)

To indicate the ever present aim of improvement of student experiences and to present additional information from ward personnel regarding the value of student operating room experiences, another abstracted summary was reviewed. Barbara Kurth's Exploratory Study to Determine a Method of Improving Operating Room Experience for Collegiate Students of Nursing indicated that:

Data from operating room personnel show that principles of aseptic technique essential in an operating room learning experience can be developed in six weeks under certain conditions, continuous patient care seems to provide opportunity to acquire necessary concurrent and concomittent learnings; data from recovery room personnel substantiated finding and indicated students more cognizant of patient needs; data from surgical ward agreed with findings of operating room and recovery room. (55)

These studies have supported the literature in showing the need for better preparation of the nurse, in order to ensure safe care of the patient, the variety of operating room experiences in the basic programs in schools of nursing and for continual re-evaluation and enhancement of the student experience in this area.

CHAPTER III

DESIGN OF THE STUDY

Introduction

The crucial need for operating room nurses, well prepared in their field, ensuring safe patient care has been reflected over the nation. (30) (36) Although the shortage of professional nurses has been reported in every nursing health field, the situation in the operating room has become more threatening since the change in basic programs in schools of nursing. The reduction or deletion of the experience, with it's change in emphasis, has resulted in presenting operating room supervisors with the problem of intensive instruction of the newly employed professional nurse with little if any previous operating room experience. (29) (7)

According to the literature, professional nurses desiring additional preparation in operating room nursing, have been guided toward operating room courses. (48) However, there are no school or hospital courses in operating room nursing to which the National League for Nursing has given accreditation at the present time. Lack of graduate credit or accreditation of nursing school program in operating room nursing, or knowledge of the location of hospital sponsored programs in

operating room nursing , has made it difficult for nurses interested in this field to obtain additional preparation. (42) (48)

This study was undertaken to obtain the opinions of selected Oregon operating room supervisors regarding their instruction of newly employed professional nurses.

The Design of the Study

The purposes were to ascertain these factors regarding the plan of instruction; the content by major topics, the persons designated to teach the nurse, and the length of time believed necessary for preparation according to the size and location of hospitals. It was of further interest to determine if the professional background of the operating room supervisors influenced their instruction plan. Preferences of these supervisors relating to preparation of nurses seeking employment in their operating room was included.

The questionnaire was constructed, each item was directed toward eliciting information that contributed toward the achievement of the purposes. The tool was evolved with the assistance of a group of professional nurses. Validation was accomplished by submission of the questionnaire to a group of professional nurses with knowledge and practice in the operating room. After revisions it was considered adequate for the study. The letter (Appendix A), questionnaire (Appendix B) and self-addressed, stamped envelope were mailed to participants.

The return envelope was coded in order to ascertain the size and location of the hospital of respondent. The sample included 40 operating room supervisors of hospitals selected arbitrarily according to size and location in the State of Oregon.

Tabulation and Interpretation

Oregon has 51 hospitals with a bed capacity of 74 or less and 36 hospitals with 75 or over. (47) The larger hospitals are concentrated in the more heavily populated area of the northwestern part of the state. Forty hospitals were selected arbitrarily on the basis of bed capacity and location in the state. Information was sought from 18 large hospitals and 22 small ones. There was an attempt to determine if patterns of teaching and orientation were influenced by proximity to nursing education centers. Supervisors in hospitals with student nurse programs and those that did not, as well as institutions in metropolitan, suburban and rural communities were included.

Thirty two supervisors completed and returned the questionnaire with the majority of items answered. Five did not wish to participate and returned the questionnaire, unanswered. There were 3 who did not respond. The distribution of respondents according to hospital size was equal, 16 from large ones (capacity 75 or more beds) and 16 from small hospitals (74 or fewer beds).

Part I of the questionnaire was developed to obtain information regarding the professional background of nurses designated as supervisors of operating rooms. From the data obtained from items A and C, Table I depicts the distribution of 32 operating room supervisors according to educational preparation and size of hospital in which they were employed.

Table 1. Distribution of 32 Operating Room Supervisors According to their Professional Education and Size of Hospital in which Employed

Type of Nursing School Program from which Graduated	Size of Hospital in which Employed		
	Small	Large	Total
Diploma	16	12	28
Degree (BS)	0	4	4
Total	16	16	32

The national average of degree versus diploma nursing graduates reported in 1961 Facts About Nursing was 13.2%. (42) The average of this sample population was 12.5%

Nurses who have graduated from diploma program and enrolled in the nursing baccalaureate program, but have not completed it, numbered seven, 21.8% of the sample.

For ease in manipulation of data, all respondents who were enrolled in or had completed the baccalaureate program were

combined into one group, termed degree. Eleven, 34.3%, were of that group; 65.77%, in the diploma group.

Responses to item B revealed all respondents had had additional preparation through working in the operating room.

There was not sufficient variation in responses regarding attendance at hospital or nursing school sponsored courses on operating room nursing to indicate need for tabulation. These responses were combined in Table 2 to depict the additional preparation in clinical specialty received by the respondents.

Table 2. The Academic Preparation of 32 Operating Room Supervisors Related to Means of Obtaining Additional Preparation in Operating Room Nursing

Means of Obtaining Additional Preparation in Operating Room Nursing	Academic Preparation		
	Degree	Diploma	Total
Course in Operating Room Nursing	2	1	3
Course and Institutes	2	2	4
Institutes	5	13	18
None	2	5	7
Total	11	21	32

There was no apparent difference between the graduates of the two programs in their attendance at courses or institutes in operating room nursing. Of the respondents, 21.8% had attended courses, 68.7% had attended institutes and 21.8% had not attended either.

Item D of Part I was apparently open to misinterpretation. The responses were interesting but not significant. Many respondents interpreted the item to mean the previous position only; others gave multiple responses. The following information was obtained. There were 14 supervisors who had been in the present position for five years or more; 9 in large hospitals and 5 in small ones. Five nurses had become supervisors after less than one year of staff nursing; they were employed in small hospitals. Their responses are cited verbatim in Appendix C.

According to Pigors, Myers and Cantlin, the supervisor is the person responsible for determining the plan of instruction of a new employee.

Part II was constructed to determine possible similarities and variances in the plan for instruction of the professional nurse in the operating room among the selected hospitals.

It was the intent to use the item regarding orientation only as a means of differentiating orientation per se from a planned instruction course.

The orientation program as indicated by the multiple

responses showed dissimilarity of content and time between the participants in the study.

Four persons did not respond to the question; eight did not respond to a part of the question. Of the respondents, 57.1% planned 1-2 hours for orientation to hospital and operating room policies; 25%, 3-5 hours and 17.9%, six hours or more. 82.1% selected 1-2 hours for tour of operating rooms and explanation of the physical set-up; 10.7%, 3-5 hours and 7.2%, 10 or more hours. 89.2% indicated 1-2 hours for introduction to personnel while one respondent said 3-5 hours and 2 stated 10 hours or more. The distribution of answers regarding description of differences in procedure were scattered. 57.1% chose from 1-5 hours and 42.9%, 6 or more. For demonstrations, 25% selected 1-5 and 75%, 6 or more hours. These findings are shown in Table 3.

Table 3. Responses of 32 Operating Room Supervisors Regarding the Content of Orientation to Operating Room for the Professional Nurse and the Average Number of Hours Planned

Content of Orientation	Average Number of Hours Planned					Total
	1-2	3-5	6-9	10 or more	No Response	
Hospital and Operating Room Policies	16	7	1	4	0	28
Tour and Explanation of Physical Set-up	23	3	0	2	0	28
Introduction to Personnel	25	1	0	0	2	28
Description of Differences in Procedures	6	10	2	8	2	28
Demonstrations	3	4	6	11	4	28
No Responses					4	4
Total	73	25	9	25	12	144

The supervisors' academic and clinical preparation were the variables selected as related to the instruction of the newly employed professional nurse with no previous experience in the operating room and will be shown in Tables 4 through 10.

Item B of Part II was developed to determine the respondents' opinions of time usually required to prepare a professional nurse to function efficiently in the operating room without supervision. The responses of supervisors in the degree group were equally divided in indicating 7-12 and 13-24 weeks as the choice of time needed to prepare a newly employed nurse to function efficiently without close supervision. Of the supervisors who graduated from diploma schools, the majority selected 1-6 or 7-12 weeks; 61.1% indicated 12 weeks or under and 38.9%, 13 weeks or over.

Table 4. Responses of 32 Operating Room Supervisors According to Length of Time Required to Prepare the Professional Nurse and Supervisors' Academic Preparation

Length of Time in Weeks for Instruction of Nurse	Supervisor's Academic Preparation		
	Degree	Diploma	Total
1-6		6	6
7-12	5	5	10
13-24	4	3	7
25-36	1	3	4
37 or more		1	1
No response	1	3	4
Total	11	21	32

The study attempted to determine if previous enrollment in operating room courses would influence the supervisors' opinions regarding necessary time for instruction of the nurse. Accordingly the findings of Part I C and Part II B were compared in Table 5. All respondents were employed in large hospitals. None expressed the opinion that 6 weeks would be sufficient time for instruction or that it would be necessary to extend the period beyond 36 weeks. Two participants who had received additional preparation through both a course and institutes are included in Table 5.

Table 5. Responses of 7 Supervisors, Who Had Attended Operating Room Courses, According to the Time Requirement for Instruction of the Newly Employed Nurse and the Supervisors' Academic Preparation.

Time Requirement for Instruction of Newly Employed Nurse	Academic Preparation of Supervisors Who Had Attended Operating Room Course		
	Degree	Diploma	Total
7-12	2	1	3
13-24	1	2	3
25-36	1	0	1
Total	4	3	7

A similar comparison was made for those supervisors whose preparation had been obtained by attendance at operating room institutes. This is shown in Table 6. Attendance at institutes did not seem to vary the supervisors decisions regarding the time needed for the new nurse's instruction.

Table 6. Responses of 18 Supervisors, Who Attended Operating Room Institutes, According to Time Requirement for Instruction of the newly Employed Nurse and Supervisors' Academic Preparation

Time Requirement For Instruction of Newly Employed Nurse	Academic Preparation of Supervisors Who had Attended Operating Room Institutes		
	Degree	Diploma	Total
1-6	0	5	5
7-12	2	2	4
13-24	2	1	3
25-36	0	2	2
37 or more	0	1	1
No Response	1	2	3
Total	5	13	18

There were seven supervisors, who had not taken a course in operating room nursing or attended institutes. Comparison was made of the length of time they indicated as necessary to prepare a new graduate to function efficiently in the operating room under a minimum of supervision with the type of program from which the supervisor had graduated. Since one had not responded, the comparison of the remaining six supervisors did not reveal information that differed essentially from that already tabulated. The findings are shown on Table 7.

Table 7. Responses of 7 Supervisors, Who Had Not Had Either Course or Institute in Operating Room Nursing, According to Time Requirement for Instruction of the Newly Employed Nurse and the Supervisors' Academic Preparation.

Time Requirement for Instruction of Newly Employed Nurse	Academic Preparation of Supervisors Who Had Not Attended Either Course or Institute in Operating Room Nursing		
	Degree	Diploma	Total
1-6	0	1	1
7-12	1	2	3
13-24	1	0	1
25-36	0	1	1
37 or more	0	0	0
No Response	0	1	1
Total	2	5	7

Question C of Part II was developed to answer the fourth purpose. Did the choice of the person selected for teaching the new nurse vary according to the supervisor's academic background or size of the hospital in which she was employed?

For ease in tabulation, head nurse and assistant head nurse were grouped under one section. Inservice nurse and

one professional nurse, especially assigned to the role of instructor, were also grouped together. No respondent marked the technician, so this item was not included.

The supervisors in the degree group chose, fairly evenly head nurses, nurses especially assigned to instruction, or themselves. The one choice of any staff nurse was qualified by the comment that it would "depend upon the staff nurse and her experience." Of the diploma Group, 42.4%, chose the supervisor and the rest of the selections were fairly evenly dispersed over other possible selections. The responses according to large hospitals in relation to choice, indicated the same pattern as the degree group. The dispersal of answers for small hospitals seem to be similar to that of the diploma group. The supervisors with degree preparation and those who work in large hospitals indicated the choice of the more experienced nurses as persons responsible for the instruction of the new nurse. The surgeon was considered a person involved in a major portion of the teaching in the smaller hospitals, where supervisors were of the diploma group. Some respondents indicated one answer; some selected more than one.

Pearson-r correlations were done between the large and small hospitals and between the degree and diploma group, regarding choice of persons for instruction. They were not significant according to the table of critical values of the

Spearman Rank Order Coefficient of Correlation. The choice of individual to teach new personnel in operating room could not be predicted for the one group by knowing the choice of the other group. The findings of Item C Part II are shown on Table 8.

Table 8. 32 Supervisors' Choice of Persons Responsible for Major Portion of Instruction of Newly Employed Nurse, According to Academic Preparation of Supervisor and Size of Hospital in Which Employed.

Persons Responsible for Major Portion of Instruction of Newly Employed Nurse	Academic Preparation of Supervisor		Total	Size of Hospital		Total
	Degree	Diploma		Large	Small	
Supervisor	4	14	18	7	11	18
Head Nurse	6	5	11	8	3	11
Nurse Especially Assigned to Instruction	5	3	8	6	2	8
Any Staff Nurse	1	5	6	2	4	6
Surgeon	0	4	4	0	4	4
No Response	0	2	2	1	1	2
Total	16	33	49	24	25	49

To ascertain any influence of supervisors' attendance of operating room courses or institutes upon selection of persons for teaching responsibility, Table 9 was formed. There does not seem to be any relationship between the two.

Table 9. Multiple Responses of 32 Supervisors of Persons Responsible for Major Portion of Instruction of New Employee Tabulated According to Attendance to Institute or Course.

Persons Responsible for Major Portion of Instruction of New Employee	Supervisor Attendance to Course and/or Institute				Total
	Course and Institute	Course	Institute	No Attendance	
Supervisor	1	1	12	4	18
Head Nurse	2	1	7	1	11
One Professional Nurse Especially Assigned	2	1	4	1	8
Any Staff Nurse	0	0	4	2	6
Surgeon	0	0	4	0	4
No Response	0	0	1	1	2
Total	5	3	32	9	49

Item D, Part II sought to elicit information concerning the plan of instruction exclusive of orientation. The items were listed as:

1. daily classes with planned content and guided experience,
2. once-a-week class with planned content and guided experience,
3. guided experience (on-the-job training with staff members),
4. incidental instruction whenever the need arises,
5. others (please explain).

The comments in answer to the fifth selection were made by three respondents. Other methods were given as "lectures and group conferences", "group discussions" and "assigned reading". The academic preparation of participants does not seem to have influenced their choice of method of instruction. The size of the hospital apparently caused little variance of response with the exception of selection of first two methods. Eight of the respondents, supervising in large hospitals, selected daily or weekly classes as their methods of instruction, but only one of the supervisors in a small hospital made this selection. The most frequently selected method (47.3%) was on-the-job instruction; 23% indicated incidental instruction.

These choices were indicated by supervisors in all categories, namely those who had graduated from degree schools or diploma programs and those who were employed in large as well as small hospitals. The findings are shown in Table 10.

Table 10. Selected Method of Instruction of New Employee Indicated by 32 Supervisors Compared to Supervisor Academic Preparation and Size of Hospital in Which Employed

Method of Instruction of New Employee	Supervisors Academic Preparation		Total	Size of Hospital		Total
	Degree	Diploma		Large	Small	
Daily Classes	2	*1	3	3	0	3
Weekly Classes	2	4	6	5	1	6
On-The-Job	10	17	27	14	13	27
Incidental	4	12	16	7	9	16
Others	2	1	3	2	1	3
No Response	0	2	2	1	1	2
Total	20	37	57	32	25	57

* Respondent qualified choice with word "initially", leaving doubt as to meaning.

Question E attempted to ascertain the amount of individual instruction time per week received by the new nurse. There was little variation in the responses. Twelve of the supervisors did not answer the question. Sixteen of the participants indicated an average of from 1 to 5 hours per week. The other

four were divided evenly between the choice of 6-10 and 16 or more hours. No one selected the 11-15 choice. The answers were evenly distributed between large and small hospitals and between supervisors from degree program and diploma schools. These data indicated there was no apparent relationship of these two factors to their response, as shown in Table 11.

Table 11. Responses of 20 Supervisors regarding Hours of Individual Instruction of the New Employee According to Supervisor Academic Preparation and Size of Hospital in Which Employed

Hours of Individual Instruction of New Employee	Supervisors Academic Preparation		Total	Size of Hospital		Total
	Degree	Diploma		Large	Small	
1-5	8	8	16	8	8	16
6-10	1	1	2	1	1	2
16 or more	1	1	2	1	1	2
Total	10	10	20	10	10	20

In question F, the respondents were asked to state ten or more general aspects of operating room nursing included in their instruction of the new nurse. Fifteen of the 32 participants did not respond. Since 17 did respond, the lack of

response would not seem to be due to lack of clarity of the question. Could the reason for not answering the question be due to lack of time, of ability to express themselves or to lack of knowledge? These possibilities have been expressed by Cantlin in her discussion of promotion of staff nurses to operating room supervisors. The responses were categorized into the main aspects shown in Table 12. Other items mentioned once or twice and therefore not placed in the table were teaching, economy, personnel safety, ethics, constant improvement of patient care in outpatient department and in the operating room and recovery room. These items were also in addition to the others mentioned in the table. Size of the hospital or preparation of the supervisor had no apparent relationship to the expressed main aspects of operating room care. Many respondents mentioned "responsibilities of the nurse" but did not specify the various aspects of the role. The aim of the question was for broad aspects of operating room care included in the instruction of the new nurse. A similarity in general content did seem to exist since items 1 and 4 dealing with many subdivisions, were mentioned by over 90% of the seventeen. Items ³2 and 5, included by over 70% of the respondents to the question, are also complex topics. Over 50% mentioned equipment; over 40% interpersonal relations and over ^{40%}50% mentioned charge nurse responsibilities. All items mentioned have basic principles and knowledge

applicable to any operating room, regardless of the size or location of hospital. (4)

Table 12. The Major Categories of Operating Room Nursing Mentioned by 17 Supervisors Indicating Number of Times Listed and Percentage of Respondents Choosing the Classification.

Major Category	Number of Times Listed	Percentage Respondents Choosing Category
Asepsis	16	94.1
Interpersonal Relationship	8	48.8
Scrub Nurse Responsibilities	12	70.5
Circulating Nurse Responsibilities	15	92.3
Operative Procedures	13	76.4
Non-operative Procedures	4	23.5
Equipment	9	52.9
Legal Aspect	4	23.5
Charge Nurse Responsibilities	7	41.1
Others - 2 Items	2	11.7
5 Items	1	5.9

Part III, Item A, requested the supervisors to state their preference of academic background of a new employee and to give reasons for preference. Four of the 32 (12.5%) did not answer; eleven (34.3%) had no preference. Three (9.3%) preferred degree program and thirteen (40.6%) gave diploma as preference. The opinions expressed by those selecting diploma graduates may be found in Appendix D. Summarized, they consider diploma graduates, in general, more adaptable to the operating room because of technical understanding of the operating room care, experience derived during student assignment, good knowledge, application of teamwork, and cooperation. The comments accompanying the baccalaureate degree preference are also found in Appendix D. These preferences seemed to be based on recognition of the value of more extensive basic professional preparation. The anticipated function of the new employee was mentioned by one respondent. If the new nurse were to fill an instructor or supervisor role, a baccalaureate graduate would be her selection; if a staff nurse, a diploma graduate. Four supervisors had received baccalaureate degrees, 28 were from diploma schools. Of the four degree graduate supervisors, one had no preference, one preferred degree employees and two preferred employees who had graduated from diploma programs. Several took this opportunity to express opposition to the changes in the operating room experience of the students in degree program.

Item B, Part III was devised to elicit the operating room supervisors preference of the preparation of prospective employees. Would she prefer to employ a nurse who had had a course in operating room nursing following graduation from a school of nursing or would she prefer to instruct the new employee herself? It had been anticipated that the size of the institution in which the supervisor worked might influence her preference, but responses were quite equally divided.

Hospital size did not seem to relate to the opinions expressed. Six comments were made preferring individual hospital instruction based upon good basic instruction and experience. One respondent of the same group indicated uncertainty of content in operating room nursing course. The individually expressed opinions of the supervisors may be found in Appendix E.

The preparation of the supervisor had no apparent influence on responses to this item. Of the participants, 56.2% favored an operating room course after graduation from the basic program. The reasons stated were: quicker orientation, more self confidence, less teaching time required of the staff and an enrichment of operating room nursing care.

The findings from Part III, B follow in Table 13.

Table 13. Expressed Opinions of 32 Supervisors Regarding Their Preferences of Preparation in Operating Room for Prospective Nurse Employee Related to Hospital Size

Preparation in Operating Room	Hospital Size		Total
	Large	Small	
Operating Room Course	9	9	18
Instruction in Individual Hospital	4	5	9
No Preference	3	1	4
No Response	0	1	1
Total	16	16	32

Mahon's study of professional literature from 1950 to 1955 indicated trends toward promotion of educational programs for all nursing personnel. In this study, when considering possible professional assets of future nurse employees, the majority of the supervisors believed the procurement of additional preparation by taking a course in operating room nursing to be desirable, thus supporting one aspect of Mahon's study.

The variation among the supervisors of this sample in attendance at operating room institutes or courses, as well

as the number of months or years of staff nurse experience obtained before assuming their supervisory position, indicates a difference in their individual preparation in operating room nursing. According to Cantlin's interpretation in Nursing Outlook, personnel's practices of and attitudes toward operating room nursing can be influenced by supervisor preparation. This study revealed emphasis upon asepsis as one aspect of instruction of the newly employed professional nurse but was not designed to obtain specific information in this area. Lacking such detail, this investigation could neither support nor negate Cantlin's study or Nagumo's evaluation of aseptic practices.

Other related studies referred to student rotation in the operating room and were reviewed to obtain information on variation in rotation plan and instruction of operating room nursing in student basic programs. The respondents differentiation in amount of time allotted for orientation, the instruction emphasis on basic concepts in operating room nursing in addition to expression of need for the individual approach seemed to indicate their recognition of this situation. Several participants in answering items concerning professional background of potential employees expressed their opinions regarding the influence of their opinions of basic nursing programs upon their responses.

The summary of the findings, the conclusions drawn and recommendations for future studies have been stated in the next chapter.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The nation wide shortage of nurses accompanied by curriculum changes resulting in reduction of student nurse experience in the operating room has presented supervisors of operating rooms with a serious problem. The recently graduated professional nurse, who is interested in operating room nursing is often not able to assume staff nursing responsibilities. There are no courses in operating room nursing accredited by The National League for Nursing. There are no hospital or nursing school programs in operating room nursing in Oregon. Each supervisor of each hospital must instruct her own new employees, as they apply for work. The addition of technicians to the nursing team has helped alleviate situations requiring technical skills but their arrival has presented the professional nurse with more responsibility for supervision and guidance. The urgent need for prepared, experienced, professional, operating room nurses has been expressed repeatedly by members of the medical and nursing profession.

This study was to investigate the instruction of newly employed nurses with no previous experience in operating room

nursing beyond that received in the basic nursing program.

The operating room supervisors, to whom the questionnaire was sent, were selected arbitrarily according to the size of the hospital in which employed and it's location in the state.

The study attempted to determine:

1. the content and methods of instruction among respondents,
2. the amount of time allotted for special instruction,
3. the relationship, if any, between the instruction plan, the size of the hospital and the academic preparation of the supervisor.
4. who was responsible for implementation of the teaching plan and whether this varied according to size of institution and academic background of operating room supervisor,
5. if the supervisors preferred to employ graduates from degree schools or diploma programs and their reasons therefore,
6. if the supervisors believed an additional course of instruction beyond basic program would be desirable.

The primary source of data was the questionnaire responses received from 32 selected operating room supervisors throughout Oregon.

The data collecting tool consisted of a questionnaire of multiple choice and open end items, concerning the preparation of the supervisor, the plan of instruction and preferences in selection of nurse employees. The questionnaire was sent to 40 supervisors with 32 responses.

It was found that the general content of instruction was

similar in all settings. Of the ten major categories of emphasis, 50% of respondents listed asepsis, circulating nurse responsibilities, operating procedures, scrub nurse responsibilities, and equipment care. Interpersonal relations and charge nurse responsibilities were listed by 40%.

The time allotted for the instruction of the new nurse, beyond the initial orientation averaged from seven to twelve weeks. Sixteen of the respondents indicated the nurse would be oriented and functioning with a minimum of supervision within a twelve week period. Twelve showed a preference for longer periods of time. Regarding individual instruction, 46.8% of the supervisors indicated the amount from one to five hours per week. There were no responses from 37.5%; the other 12.5% chose either six to ten hours or sixteen or more hours.

The supervisors' academic preparation and the size of the institution in which they were employed were unrelated to their selection of content, method of instruction or average length of time required for instruction in operating room nursing. The methods cited most frequently were guided experience or on-the-job training staff members (47.3%), incidental instruction as necessary (28.5%), and planned classes (15.7%). All but one of the supervisors who indicated planned or organized class instruction were employed in large hospitals.

The average length of time required for instruction seemed to be almost a matter of individual choice; 1-6 weeks was chosen by 5, mostly by supervisors who were from diploma programs. The supervisors of the degree group tended to indicate a longer period of instruction. There were only 2 who preferred a period of 25-36 weeks for instructing a recently graduated employee.

The selection of persons to carry the major responsibilities for instructing the new employee varied slightly with the supervisor's preparation and the size of the employing institution. The supervisors of the degree group and those employed in large hospitals indicated that the teaching should be done by the supervisor, head nurse or a nurse specifically assigned to teaching. The supervisors who were from diploma programs and those who worked in small hospitals seemed to be in accord that the supervisor, herself, should do the teaching. In a few instances, other personnel were indicated.

Only seventeen respondents indicated a preference relative to the basic professional preparation of a new employee; 40.6% would select a graduate from a diploma program for these reasons: ability to adjust quickly to the operating room due to their more extensive experience in that area while students; good teamwork; cooperation; knowledge and understanding of technique.

Those who stated preferences for the degree graduate, 9.3%, gave as their reasons, improved quality in performance as a

result of increased education. The anticipated function of the nurse as possible instructor or supervisor was also indicated. One respondent mentioned the desirability of having graduates of both types of schools. In several instances, the recent change in the degree program was given as reason for diploma preference. It is noteworthy that half of the supervisors did not reply to this item.

The majority of the supervisors, 56.2% showed by their replies to item B, Part III, that it would be desirable for the recent graduate to have had a course in operating room nursing before employment. However, 24.3% indicated they would prefer to teach their new employees themselves. This comment was frequently preceded by the statement that it would be dependent upon good basic preparation. This creates some confusion in interpretation as to what is thought to be good preparation. Reasons for favoring a course in operating room nursing before employment were that less teaching time would be needed after employment and that a well prepared nurse would be able to enrich the in-service preparation of other operating room nurses.

Conclusions

1. On the basis of responses from such a limited sample as 32 participants, no wide-spread generalizations can be drawn. It can be concluded, however, that the 32 supervisors, who participated in this study were unanimous in indicating that

recent graduates of schools of nursing (regardless of type) need instruction in operating room nursing before they can function effectively in the operating room with a minimum of supervision.

2. The expressed need for arranging instruction for each inexperienced nurse who seeks employment in the operating room has implications for the development of special courses in operating room nursing.

3. The operating room supervisors appear to have accepted the responsibility for instructing each recently graduated new employee.

Recommendations for Further Studies

1. A "cost study" of instruction in operating room nursing provided for inexperienced nurse employees. This recommendation is made because the findings of this study indicated that the teaching was often incidental or on-the-job training and that it was frequently a one to one basis of teacher and learner, hence probably costly.

2. A study of how to develop courses which use creative teaching methods and the instruction of expert teachers; for example, to make wide-spread use of educational television, films and similar items. Such methods are in current use for operating room courses of the military services and might very well be developed for instruction of personnel in non-military hospitals.

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APPENDICES

APPENDIX A
LETTER TO PARTICIPANTS

2302 S.E. 58th Avenue
Portland, Oregon
April 5, 1963

Operating room Supervisor,

In partial fulfillment of requirements for a Master of Science degree at the University of Oregon School of Nursing, I am undertaking a thesis concerned with the instruction of the professional nurse to prepare her/him for operating room nursing.

You are invited to participate in this study and I am hoping you will be willing to take a few minutes to fill out the enclosed questionnaire. All information will be treated in confidence; you need not sign the questionnaire. A self-addressed envelope is enclosed for your convenience in responding before April 22, 1963.

A copy of the study will be placed in the library of the University of Oregon Medical School, if you are interested in reading the report. Thank you for assisting with the study.

Sincerely,

Any assistance you can give Mrs. Tyler will be very much appreciated.

Lucile Gregerson
Associate Professor
Thesis adviser

APPENDIX B

QUESTIONNAIRE USED FOR THE STUDY

INSTRUCTION OF THE PROFESSIONAL NURSE
IN OPERATING ROOM NURSING

The purpose of this questionnaire is to determine the factors relating to the newly employed, professional nurse's preparation for operating room nursing.

DEFINITIONS OF TERMS:

Instruction- any direction, information, or knowledge given to the professional nurse, beyond that given in the orientation to the specific operating room.

Recipient of the instruction- any professional nurse, newly employed, without previous experience in operating room nursing in a graduate nurse capacity.

Orientation program- interpreted to include any or all of the following items: hospital and operating room policies, job description, tour and explanation of physical set-up of operating room, introduction to personnel, description of individual differences in procedures.

DIRECTIONS: Place an X in the column opposite your choice of an answer to each item. More than one answer may be marked, when necessary.

Example:

0. The average number of days of hospitalization for the surgical patient in your hospital is
- | | |
|---------------|------------------|
| 1. 1-5 | _____ |
| 2. 6-10 | _____ |
| 3. 11-15 | <u> X </u> |
| 4. 16-20 | _____ |
| 5. 21 or more | _____ |

APPENDIX B (continued)

Part I. . . pertains to your professional preparation as a participant in this study.

A. From what type of program were you graduated?

1. Associate of Arts degree. _____

2. Diploma. _____

3. Baccalaureate degree. _____

4. Other (please specify). _____

B. You obtained additional preparation by

1. working in the operating room _____

2. taking a hospital sponsored operating room program of not less than three months. _____

3. taking a nursing school sponsored course in operating room nursing. _____

4. attending operating room institutes or conferences. _____

C. You obtained additional academic preparation through

1. enrollment in the baccalaureate program. _____

2. completion of the baccalaureate program. _____

3. enrollment in the master's program. _____

4. completion of the master's program. _____

D. Your previous operating room experience was obtained in the following position for how many years?

	Less than 1	2	3	4	5 or more
1. Staff nurse.	_____	_____	_____	_____	_____
2. Head nurse.	_____	_____	_____	_____	_____
3. Supervisor.	_____	_____	_____	_____	_____
4. Instructor.	_____	_____	_____	_____	_____

Part II . . . pertains to the orientation and additional instruction planned for the professional nurse, newly employed in your operating room.

A. How many hours constitute your operating room orientation program?

	1-2	3-5	6-9	10 or more
1. Hospital and operating room policies and job description.	_____	_____	_____	_____
2. Tour and explanation of physical set-up of operating room.	_____	_____	_____	_____
3. Introduction to personnel.	_____	_____	_____	_____
4. Description of individual differences in procedures.	_____	_____	_____	_____
5. Demonstrations.	_____	_____	_____	_____

- B. In your opinion, how many weeks are required to prepare the new graduate to function efficiently, without supervision?
1. 1-6 weeks. _____
 2. 7-12 weeks. _____
 3. 13-24 _____
 4. 25-36 _____
 5. 37 weeks or more. _____
- C. Which of the following personnel are responsible for the major portion of the instruction of the newly employed nurse?
1. Supervisor. _____
 2. Head Nurse. _____
 3. Assistant head nurse. _____
 4. Inservice nurse. _____
 5. One professional staff nurse.
(especially assigned to that role). _____
 6. Any staff nurse. _____
 7. Technician. _____
 8. Surgeon. _____
- D. The Plan of instruction, exclusive of orientation, is
1. daily classes with planned content and guided experiences. _____
 2. once-a-week class with planned content and guided experiences. _____
 3. guide experiences (on-the-job training with staff members). _____
 4. Incidental instruction, whenever the need arise. _____

5. others (please explain). _____

E. Individual instruction, exclusive of orientation, averages

1. 1-5 hours per week. _____

2. 6-10 hours per week. _____

3. 11-15 hours per week. _____

4. 16 or more hours per week. _____

F. List, briefly, ten or more major aspects of operating room nursing included in your plan of instruction.

Part III. Assume that you are selecting a new employee.

A. Would you prefer her/him to be a graduate from

1. an associate of arts degree program. _____

2. a baccalaureate degree program. _____

3. diploma program _____

Why?

B. Would you prefer that your nurse

1. had taken a course or program in operating room nursing after graduation? _____

2. would be employed "as she is" and to instruct her/him yourself? _____

Why?

APPENDIX C

Master Table of Supervisors' Operating Room Experience,
According to Number of Years in Previous Position,
Tabulated from Data Obtained from Question D, Part I

<u>Staff Nurse</u>	<u>Head Nurse</u>	<u>Supervisor</u>	<u>Instructor</u>	<u>Anesthetist</u>
2	-1	5+		
2		2		
2	-1	5+		
5+	2	5+		
2				
4	2	3		
2	3	5+		
-1				
		5+		
-1				
-1				
2	5+	5+		
		2		10
-1				
-1			-1	
		5+		
3			5	
		5+		
2		-1		

APPENDIX C (continued)

<u>Staff Nurse</u>	<u>Head Nurse</u>	<u>Supervisor</u>	<u>Instructor</u>	<u>Anesthetist</u>
-1		5+		
2	3			
3		5+		
2				
		5+		
		5+		
2	5+	5+	5+	
5+		3		
-1				

Two participants did not respond to this question

APPENDIX D

Part III

Question A. Selection of new employee

Supervisors reasons for preference of diploma school graduate.

Twelve respondents

Answers: "Better O.R. Experience as a student nurse. It would really depend upon the individual - My impression on interview."

"Basic operating room training and experience far exceeds that of any degree program. As a result the nurse is usually capable of assuming staff nurse responsibilities much more rapidly. This writer is not opposed to degree programs- only to the drastic reduction in length of operating room experience which these programs appear to have brought about".

"Until the college degree program improves the operating room part of the students program- I feel that diploma graduates have a much better preparation before they are employed in O.R."

"Here again it would depend on the individual nurse. We have had fewer graduates from degree programs than diploma, so my comparison in small, but general staff, I would say diploma. Of course, we rarely turn anyone away no matter from what school they have graduated. I think a combination of the two is challenging to all workers."

"If I am selecting a new employee for general duty in surgery a diploma program graduate can handle the duties required of her. If I need an instructor or a supervisor I believe a degree is needed."

APPENDIX D (continued)

"Any diploma program that provides basic nursing principles produce knowledgeable nurses. Extra curricular activities such as public health- seem impractical in hospital routine. Good basic training allows nurses to be adaptable. Practical nursing work is necessary."

"They seem to have more practical experience and background for their work. I feel the more experiences they have had makes it easier for us when they are new in the department."

"Small hospital closer supervision."

"They have a better understanding of cooperation and what is needed technically. They fit into the "team" better."

"They seem to have more knowledge of the technique and working of an operating room."

"In a small hospital Surgery, the staff is very limited and a new employee is expected to do many other duties beside just Surgery."

Supervisors reasons for preference of degree graduate.

Three respondents

Answers: "I think it a good ider all R.N.s have a degree too."

"The higher the education a person receives, greater is the efficiency she or he can demonstrate, excellence is the goal in our relationship with the sick people and medical profession. The greater service she can render to society."

"A wider background and more technical knowledge results in better patient care."

APPENDIX E

Part III

Question B. Selection of new employee

Supervisors' reasons for preference of nurse having taken an operating room nursing course after graduation

Eighteen respondents

Answers: "They can at least be of better assistance to you as a small institution- you do not have to worry about their technique and knowledge of what goes on."

"Takes less time to orient her- She won't become discouraged and quit so easily."

"Our Hospital is 40 beds. We have at present time both O.R. and C.S."

"I feel that if a nurse has enough interest in a particular field to go ahead and take special training after she graduates that she has a real interest in that particular area and will be with us longer than one coming to us out of training who perhaps has marriage and family in mind and is interested only in the monetary return. Too if schools of nursing can get up post graduate courses in operating rooms they will probably have a better program to present to the nurse than we in a small hospital without as much variety to offer."

"Any nurse who has taken a course or program after graduation proves her interest in O.R. nursing. Our staff is small and teaching time limited. A nurse with previous experience and/or training are more adaptable and function with a minimum amount of additional instruction."

"I find that the nurse that has had a post graduate course has a better background and a deeper understanding of sterile technique as well as a broader understanding in this field."

APPENDIX E (continued)

"Because the skill needed in O.R. can be acquired by taking advantage of short programs after completion of a baccalaureate program in nursing. The arts are much more important than the skills in our nursing curriculum."

"I think the post graduate course assures her of stability of choice and confidence in her performance. She is more apt to be an alert "learner" rather than a job holder."

"Because she would have the basic principles in Aseptic technique."

"This nurse knows she likes the O.R. Orientation is less."

"The nurse who has had a post graduate course is more reality oriented than one fresh out of school."

"To shorten in some part our own orientation program with the individual. Such an individual will also create a good learning environment for others on the staff since the nurse will bring new, fresh ideas with her."

"I cannot be definite on part III as there seems to be a difference in the time spent in the O.R. different schools - over the past 20 years."

"Continuous education can be available by learning from each other, acceptable and time or effort saving on better ways to do things. A nurse who has specialized in this has much to give to an O.R. Service without having to teach her. In small hospitals time and personnel are at a premium to teach a new employee."

"It would be helpful to the employee and employer. Self confidence for the former and experience further than received in training for better employed help."

APPENDIX E (continued)

Supervisor's preference for instructing nurse herself.

Nine respondents

Answers: "There are many things which would differ from an operating room course. Central Supply is only handled by the surgery crew which is very limited. There are many things a new employee is expected to do for the team to function affectively."

"It depends on the individual nurse. I can think of several nurses, from each of the above questions, and have found outstanding ones from both. It is always wonderful to have a new employee with experience, if she is acceptable to you personality and attitude wise, otherwise, it seems better to instruct her yourself."

"This sounds as though I don't know what I mean in my answers to question "A" above. Basic O.R. technique can be taught in the nursing school program and the in-service education will be those learning experiences that are particular to the operating room of the hospital where employed."

"Because of the size and amount of surgery we do here."

"If the nurse has had a good basis in surgery, the routine of the individual hospital are not difficult to instruct and teach."

"She has the basic knowledge and usually needs only orientation."

"She would have to learn our ways anyway."

"Every hospital surgery has its own individual make-up and each nurse has to adapt herself to its needs. As long as she has the knowledge of the basic O.R. technique then I'd like to instruct her as to our ways here."

APPENDIX E (continued)

"Because each hospital may vary quite a lot in procedures and etc."

Two respondents would not check a preference: their explanations follow:

"The answer to this cannot be made with a check mark. If the O.R. experience in the nursing school were of adequate duration and scope, we would prefer-in our situation-to instruct them ourselves. The reduction of the O.R. experience in some programs has, unfortunately, made our situation more difficult."

"I have no preference. Either would require a certain amount of orientation and training depending on experience and potential ability."

Typed by

Frances L. Schmiedeskamp