Lycoming College

Department of Nursing

Honors Research Project

The Differences in Theoretical Approaches to Patient Care Between Baccalaureate and Associate Degree Senior Nursing Students

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Running Head: THEORETICAL APPROACHES TO PATIENT CARE

Abstract

The purpose of this correlational, nonexperimental study was to determine if there is a relationship between theoretical approaches to patient care and students in different types of entry-level preparatory nursing programs. This study was designed after the original study of Gray et al. (1977) and a pilot study by Womelsdorf and Atkinson (1991). Seventeen senior baccalaureate degree nursing students and thirteen senior associate degree nursing students, from different institutions in South Central Pennsylvania were asked, on a voluntary basis, to complete an essay-type questionnaire. The qualitative data was analyzed by using content analysis and answers were coded as being either those expected of all nurses, those expected only of a technically prepared (associate degree) nurse or those expected only of a professionally prepared (baccalaureate degree) nurse. Using a two sample t-test, with .05 significance level, no significant differences between professional (BSN) and technical (ADN) nursing students were found in their approaches to patient care. However, there seemed to be a trend in the results indicating that, had there been a larger sample size, BSN nursing students might demonstrate more professional nursing competencies than their ADN counterparts, evidenced by scoring higher in the professional category.

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Chapter I

Introduction

The type and amount of education needed to prepare an individual for professional nursing practice continues to be a major policy issue. In 1985, the American Nurses' Association's House of Delegates proposed that two, and only two, categories of nursing be established: the baccalaureate as the minimum educational requirement for licensure to practice professional nursing; and the associate degree as the educational requirement to practice technical nursing (Kozier & Erb, 1987). They also stated that professional and technical nursing practice should be clearly differentiated. This study pertains to this subject and asks the following question: Do senior nursing students of technical and professional programs differ in their responses to specific nursing care situations?

At present, both technical and professional nurses are licensed as registered nurses. Also, both groups are responsible for adhering to the same policies, procedures and protocols for the provision of health care. In fact, a peculiarity of the nursing education

situation is that individuals in associate degree, diploma, and baccalaureate programs are hired for approximately the same jobs with approximately the same pay and limited responsibilities (Biggers & Zimmerman, 1988). Their educational levels - including a two year program for an associate degree nurse (ADN) versus a four year program for baccalaureate degree nurse (BSN) - and their backgrounds - technical skills as a focal point of ADN's and professional skills as a focal point of BSN's - may create a difference in their conceptual approaches implemented in specific nursing care situations. The purpose of this particular study is to determine if there is a relationship between conceptual and theoretical approaches to patient care and types of entry-level preparatory nursing programs. The specific question to be answered is as follows: Do senior nursing students of technical and professional programs differ in their responses to specific nursing care situations?

Operationalization of Variables

1. A conceptual framework, or model, is a way of looking at (conceptualizing) a discipline, such as nursing, in clear, explicit terms that can be

communicated to others.

2. A senior baccalaureate nursing student is an individual, not already a registered nurse, who is enrolled in a four-year nursing program and will graduate to seek licensure as a registered nurse with a bachelor degree. As a professionally prepared nurse, she/he is educated to be concerned with research methodology; teaching; and individual, group, and community assessment (Primm, 1987). Traditional and non-traditional students are included.

3. A senior associate degree nursing student is an individual, not already a registered nurse, who is enrolled in a two-year nursing program or junior college and will graduate to seek licensure as a registered nurse with an associate degree. As a technically prepared nurse, she/he is educated to be concerned with the technical aspects of nursing care which include maintenance of equipment and direct nursing care (Primm, 1987). Traditional and non-traditional students are included.

Limitations

Certain limitations exist with this particular study. The amount of time to conduct this research is

limited to one semester, consisting of fourteen weeks. The fact that the subjects were obtained on a volunteer basis is also a limitation because there was no incentive for them to participate. The sample is a convenience sample (including only two schools), and because the researcher had to work through a contact person for subject retention, there was a minimal number of subjects and the results of the study are limited in generalizability.

Assumptions

The researcher assumed that the students in this study would answer the questionnaire honestly and completely. It was also assumed that the subjects' responses to the essay questionnaire would directly reflect their actions in a certain clinical situation. Another assumption made was that there is indeed, a difference in the educational approaches between the associate and baccalaureate programs.

Significance of Problem

The number of students entering and graduating from the associate degree program is increasing. This trend is expected to continue unless differentiation of nursing practice occurs which defines specific role

behaviors for the ADN and BSN. Ashkenas states that if "...education of the ADN nurse is to continue on the premise that she will be a technical practitioner working under the leadership of the professional nurse, there appears to be a need for research directly related to the distinction between the two. This must go beyond mere definitions; it must validate the discreetness of each role" (1973, p.68). If this study indicates that senior nursing students of technical and professional programs differ in their approaches to specific nursing care situations, then this may be the support that is needed for differentiation of roles in the practice setting.

Chapter two will describe the theoretical framework for the study. A conceptual framework is defined along with two different educational tracks existing in nursing education. The review of literature contained within this chapter will provide the reader with the current research studies regarding the conceptual and theoretical differences between the associate and baccalaureate prepared graduate.

Research methodology, (design, sample, and instrumentation) is presented in Chapter three.

Chapters four and five will discuss the research results and findings and how these relate to the research questions, review of literature, and future research areas.

Chapter II

Review of Literature

This study was developed to determine if senior nursing students of technical and professional programs would perform differently in specific nursing care situations. Hassenplug (1965) described theoretical role differences between graduating seniors of associate degree and baccalaureate degree nursing education programs. Kohnke (1973) primarily focused on curriculum differences in technical and professional program of the graduating seniors. Further review of the literature suggests similar findings.

The foundation for this study was the original work of Gray, Murray, Roy, and Sawyer (1977), who questioned whether graduates of technical and professional nursing differ in practice. After testing twenty-two ADN and twenty-two BSN graduating seniors, she and her associates found large segments of practice relating to the care of the ill to be of equal concern to both groups. However, differences were shown in the areas of technical skills, teaching, leadership, giving support to the patient and family, interviewing for assessment purposes, actions in structured situations,

and actions following observation. The technical practitioners showed concern for meeting patients' immediate health needs, and they anticipated ways to avoid or handle expected, immediate, or later problems related to the primary one. Although the professional practitioners also had these concerns, they indicated, in addition, plans for initiation of nonprescribed nursing actions; they asked questions to ascertain from the patient probable causes for presenting problems; and they anticipated long-term needs of the patient and/or family. These needs were not necessarily directly related to the presenting problem and they reflected the nurse's breadth of knowledge.

Similar studies comparing the conceptual and theoretical differences between the associate and baccalaureate prepared graduates were done in the 1970's. Such a study (Kohnke, 1973) was conducted with a focus in curriculum differences between technical and professional programs. Kohnke investigated whether educators were producing two different products in relation to the curriculum differences. Interviews were conducted with twenty-two deans (11 ADN and 11 BSN) to determine actual

curricular content in terms of knowledge base, responsibility and role. The findings revealed a discrepancy between reality and what was described in the school's philosophy of nursing.

However, there was only one study found concerning actual practice differences between graduates of the two programs (Waters, et al., 1972). This study involved 12 directors of nursing, 22 head nurses, and 48 staff nurses (24 ADN and 24 BSN graduates) selected from 12 hospitals of varying types in the San Francisco Bay area. Differences between technical and professional practice were identified in areas of problem solving and decision making, in scope of practice, and in attitudes toward practice. Actions and attitudes of ADN graduates were found to be consistent with technical nursing practice. "Actions of these nurses had predictable outcomes, the nursing problems and interventions were physiological and physical. Baccalaureate graduates were found to practice professional nursing, and to consider patients' psychological and social needs" (Waters, et al., 1972, p. 124).

Similar studies were conducted in the 1980's. A

study that was done by Johnson in 1987, consisted of a meta-analysis of 139 individual studies of nurses educated in one of three basic nursing education programs (ADN, BSN, or diploma). She found that, in general, the baccalaureate graduate was identified as being more concerned with providing care to individuals and groups with a broad range of complex and unique health care needs. Technical or ADN nurses, were concerned with providing direct nursing care of patients with obvious health care problems associated with common, well-defined, acute or chronic health problems, and they were socialized into a role that worked under the auspices of a professional nurse. Although it was not noted that Johnson specifically looked at the differing educational curricula, she found these concerns to be significantly related to the way the two distinct groups had been educated. In other words, BSN and ADN nurses performed their distinct roles according to the separate preparations educationally provided for them.

In addition, Deback and Mentkowski (1986) conducted a study with a sample size of 8 ADN and 37 BSN nurses, and noted that BSN nurses act more

independently, take responsibilities for judgement and take on advocacy roles. On the other hand, ADN nurses failed at conceptualizing because of an inability to recognize relevant relationships.

Deback and Mentkowski (1986) administered a Job Competence Assessment in order to measure nurse performance. This included a peer nomination questionnaire enabling a comparison between "outstanding" and "good" nurses; an element inventory of 120 behaviors to assess nurses' perceptions of behaviors critical for training, selection, and outstanding performance; and a biographical questionnaire including highest degree earned and number of years in practice. A Behavioral Event Interview also generated critical incidents to assess nursing performance.

Analysis of the data from the nomination questionnaire,the biographical questionnaire and the interview showed that the impact of education was found to be independent from the impact of experience. Although experience is an important factor in the development of effective practitioners, level of education impacts a broader range of behaviors than

years of experience. The study ultimately suggests that baccalaureate nurses, given time to acquire experience, will be the most effective in professional job performances. However, this may be a profound statement to make noting the disparity in the sample size of the two types of nurses (8 ADN and 37 BSN).

Biggers, Zimmerman, and Alpert (1988), conducted a study focusing on nursing education and anxiety, and it was suggested that nurses graduating from four-year baccalaureate programs, indeed, felt more positive about their future work than all other groups. A one-way analysis of variance was conducted using trait dominance scores as the dependent variable. With this data, it was reported that graduating BSN students felt more confident and less anxious about their work, perhaps related to having a more professional orientation toward their work to begin with. Furthermore, comparisons indicated that baccalaureate students have the most professional outlook toward their future career.

A study by Murray and Morris (1982) compared the degree of autonomy among senior nursing students in diploma, associate degree and baccalaureate nursing

programs. The researchers defined autonomy as the "state wherein members of a profession are self-regulating and control their role functions in work situations" (p. 311). They believe autonomy is closely related to degrees of independence and therefore to professionalism.

A questionnaire was administered to nurses at two community hospitals, two university hospitals, and a large psychiatric in-patient facility. Autonomy, independence of practice, versus dependence, was considered on three dimensions: (1) dependence versus independence for the nurse, called "nursing autonomy," (2) dependence versus independence for the patient, called "patients' rights," and (3) rejection of traditional nursing role limitations.

Upon examination of the results, a conclusion was made, that senior nursing students in the baccalaureate program scored significantly higher on a scale of professional nursing than students from other programs. There was an indication of a "clear difference between the beginning professional nurse and the technical nurse" (Murray & Morris, 1982, p. 312). Finally, it was concluded that "baccalaureate nursing education

inculcates professional autonomy" (Murray & Morris, 1982, p. 312).

In a study conducted by Williams (1989), 400 associate degree students were surveyed concerning the educational preparation and role of the ADN and BSN nurse. Interestingly, only 50% of respondents said ADN programs produced technical nurses, yet 92% knew that BSN programs educated professional nurses. Almost 60% thought that technical nurses provided community care and 11% thought that professional nurses functioned with less autonomy than technical nurses. However, varied perceptions of the word "autonomy" might have been a factor causing this discrepancy (Williams, 1989).

Overall, it appeared that the students from this particular nursing program did not understand the difference between ADN programs and BSN programs, and yet 2/3 of the students planned to obtain a BSN in the near future. This may imply a general lack of information concerning the nursing profession in general.

A more recent study was conducted primarily to determine if graduates of technical (ADN) and

professional (BSN) nursing programs differed in nursing action/decisions in specific nursing-care situations (Giger & Davidhizar, 1990). This particular study was patterned after the research by Gray, et al. (1977). The results of the analysis indicated that graduates of associate and baccalaureate-degree programs do vary in conceptual and theoretical approaches to nursing care. In this study of 176 ADN and 167 BSN students, the BSN-prepared nurses significantly outscored ADN nurses in the professional category. For example, BSN nurses, in the study, were more concerned with research methodology, teaching, and individual, group, and community assessment. The ADN nurses were more concerned with the technical aspects of nursing care, which include maintenance of equipment and direct nursing care. Further analysis of the data indicated that BSN nurses are more knowledgeable in the areas of nursing diagnosis, concept analysis and theoretical identification and implementation of the nursing process than their counterparts, the associate nurse.

The review of the literature suggests that the BSN-prepared nurses are "more proficient in the use of research, leadership, theoretical, conceptual and

psychosocial assessment skills" (Giger & Davidhizar, 1990). The purpose of this study was to analyze any significant differences between the graduates of associate and baccalaureate degree programs. The data gathered in this study will serve to test the following null hypothesis:

> There will be no differences in conceptual and theoretical approaches to patient care between the students of ADN and BSN programs as measured by their responses to essay questions pertaining to nursing care situations.

Theoretical Framework

A theoretical framework is used to provide the basis for a particular study, and give the study some sort of direction. In this study, the relationship between theoretical approaches to patient care and types of entry-level preparatory nursing programs is examined through review of the literature and Bandura's Social Learning Theory. It is thought that the provision of this information will allow one to see why their may be a difference in the theoretical approaches to patient care between the ADN- and BSN-prepared nurses.

The review of literature suggests differentiating qualities that are unique to either the BSN student or

the ADN student. The results of previous studies have revealed that the two groups exhibit different theoretical approaches to patient care. It may be inferred that within the educational process, these nursing students acquired differentiating qualities which effected their patient care concepts. But, even though one group may be more professional than their counterpart, or more technical than their counterpart, all of the nurses should be sharing the same basic concepts in providing nursing care. If this is the case, then Leddy and Pepper (1989) state that "...the concepts that are important for the discipline must be identified, and there must be a shared acceptance of conceptual definitions (1989, p. 116).

With this in mind, one must consider how the theoretical base for nursing is formed. Nurses use theory in the form of concepts, principles and processes, to sharpen their observations and to understand phenomena within the domain of nursing practice. Such understanding "...precedes and serves as a basis for determining nursing actions to be taken" (Lang, et al., 1980, p. 11).

Nurses develop theory because they work with

concepts all the time. Infection, stress, and burnout are all terms for types of phenomena that possess well-defined characteristics. However, certain concepts are such as social class and leadership style, do not possess well-defined characteristics and are considered to be abstract. These abstract concepts are called constructs. Systems that interrelate concepts and constructs are called conceptual or theoretical frameworks (Kozier & Erb, 1987).

A conceptual framework or model is a way of looking at (conceptualizing) a discipline such as nursing, in clear, explicit terms that can be communicated to others. The conceptual model of nursing gives clear and explicit direction to three different areas in nursing: practice, education, and research. It is obvious that conceptual models form the basic foundation for holistic approaches to patient care.

In the classroom, nursing students are introduced to one of two different conceptual models: professional nursing practice or technical nursing practice. The two categories differ in breadth of knowledge and scope of practice (Gray, et al., 1977).

These two views of nursing practice are summarized appropriately by nursing faculty at the University of Vermont (1977):

> Professional nursing practice is based on theory and is not limited in scope, breadth, or depth of knowledge. The professional nurse is responsible for planning, interpreting, directing and coordinating nursing activities [and]...is able to carry out these activities in unstructured situations utilizing ability to hypothesize and find new answers. By collaborating with nurses and other health workers, the professional nurse works toward the improvement of care in health and illness for individuals, families and communities.
>
> Technical nursing practice is skill oriented and based on knowledge, limited to scope but not in depth. Specifically, the technical nurse is responsible for the direct care of patients with common recurring nursing problems where established knowledge and patterns of intervention can be utilized (pp. 222-223).

A study by Langston (1990) suggested that different socialization processes introduce

professional nursing practices into the BSN programs whereas the ADN programs tend to introduce their students to the technical nursing practice. This conclusion was based on results that demonstrated a significant difference between the baccalaureate students' professional attitude of nursing autonomy and that of the associate degree students. Langston (1990) states that "...the baccalaureate student is prepared to function in an autonomous, independent role, while the associate-degree student is taught a traditional pattern for providing care" (p. 59).

In addition, Mynatt (1985) found that student attitudes are socialized by the expectations, attitudes, and values of role models. But studies have suggested that the nursing educators, who pose as the students' main role models, cannot differentiate competencies of baccalaureate degree nurses from those expected from associate degree nurses (Research Consortium of Long Island, 1987). The nurses are used interchangeably in the clinical settings of health care facilities and the nursing care delivery system allows both groups of nurses to practice together encouraging communication and collaboration in planning care.

Nevertheless, Haberstein and Christ (1955) noted that the "traditionalizer" or "bedside" nurse was the person who was prepared to undertake the giving of care, while the "professionalizer" was the manager of delegating the care to others (cited in Bradby, 1990). Also, Melia (1981) has noted that providing essential care, for instance attending to hygiene and continence needs, is not seen as "real nursing" (cited in Bradby, 1990). As a result of this indecision about role expectations, it is evident that a viable model of nursing care delivery has not yet been demonstrated.

It is evident, however, that nursing students will construct and possess common characteristics that bond them together. It seems as though their social orientation with others has given them the reasons for entering nursing, such as wanting to meet with people, help others and provide care for patients. In fact, their view seemed to be one "...associated with the traditional image of the feminine woman reported in numerous surveys over the years" (Bradby, 1990). It is the social expectations of them being "fine-featured," "delicate," and "caring," that nurses portray their certain traits, pursue their career and exemplify their

approaches to patient care with importance (Light, Keller, & Calhoun, 1989).

According to Spickerman (1988), these social expectations are emphasized by faculty in undergraduate programs and therefore demonstrate the purpose of undergraduate nursing education. He states that the university is responsible for "...initiating the socialization process that the graduate will use in the community, the profession, and society-at-large" (Spickerman, 1988, p. 10).

Perhaps differences in theoretical approaches to patient care may be better understood through Bandura's Social Learning Theory. According to this theory, behavior is learned symbolically through processing of response information before it is performed. By observing a model of desired behavior, an individual forms an idea of how response components must be combined and sequenced to produce the new behavior. In other words, "...people guide their actions by prior notions rather than by relying on outcomes to tell them what they must do" (Bandura, 1977, p. 35).

According to Bandura, modeling has been shown to be a highly effective means of establishing certain

ehaviors. On the basis of observation, people learn, mong other things, judgmental orientations, linguistic tyles, information-processing strategies, cognitive perations, standards of conduct, and most mportantly - in the case of this particular study - onceptual schemes (Bandura, 1977). Evidence that eneralizable rules of thought and conduct can be nduced through modeling reveals the broad scope of bservational learning.

Bandura's theory allows one to see why there may e differences between the ADN's and BSN's approach to atient care. If the programs do, in fact, differ in heir presentation of educational importance (technical kills for the ADN program and professional skills for he BSN program) and the two types of students are odeling their behaviors from faculty members (who are o reinforce in clinical situations what is taught in he classroom), then it is possible that there could be difference in approaches to patient care between the DN nursing student and the BSN nursing student.

Given this background information, the next hapter will introduce the methodology. A description f the sample used in this particular study, discussion

of the instrument selected to assess differences in approaches to patient care between baccalaureate degree students and associate degree students, and projected data analysis will be discussed.

Chapter III

ethodology

Design

A correlational, non-experimental study was erformed to determine if senior nursing students of echnical and professional programs perform differently n specific nursing care situations. Non-experimental esearch was chosen because there was no active anipulation of independent variables and also because t involved human subjects. More specifically, this tudy focused on describing the relationship among ariables rather than inferring cause-and-effect elationships (Polit & Hungler, 1991). Studies of this ind are referred to as descriptive correlational. hey involve a realistic understanding of phenomena as hey operate in naturalistic settings.

The current study was designed from a pilot study y Womelsdorf and Atkinson (1991). Their study was erformed to determine if there was a relationship etween theoretical approaches to patient care and ypes of entry-level preparatory nursing programs in hich a nurse receives basic nursing education. tilizing a convenience sample of n=12 (9 senior BSN

students and 3 senior ADN students), a two-sample t-test, showed no significant differences between professional (BSN) and technical (ADN) nursing students in their approaches to patient care with a .05 significance level. However, there was a trend identified in the results indicating that, had there been a larger sample, baccalaureate nursing students would be more likely to demonstrate more professional competencies than their associate degree counterparts as evidenced by the BSN students scoring higher in the professional category.

The pilot study indicated a need for some modifications in data collection procedures. It was thought that a larger sample size was needed to show significance, so the sample size was increased. Also, the thirty-five minute time limit for completion of the questionnaire in the original study, was thought to create stress in the participants, and restrict the thoroughness of the responses to the questions. Therefore, the thirty-five minute time limit was eliminated and subjects were given an unlimited amount of time to finish the questionnaire.

Population and Sample

The population was defined as second semester enior baccalaureate students from a multi-disciplinary ollege in South Central Pennsylvania and fourth emester associate degree students from the same area. tudents at both schools were asked to participate oluntarily in the study. Thus, selection of students as not done at random. Data was collected and ompiled from 13 associate degree and 17 baccalaureate egree students via an essay questionnaire. By not equesting names from the subjects, risk to the tudents was minimal and complete confidentiality was aintained. Participation in the research was oluntary and refusal to participate would involve no enalties or losses. Subjects had the option to ithdraw at any time. Their consent was assumed upon eturn of the questionnaires. (See Appendix I).

Sample selection

The sample selection utilized in this study was onvenience sampling. This type of sampling was chosen ecause the students were easily accessible and it was hought that they would cooperate in the study. All ubjects that participated did so on a voluntary basis.

All subjects were obtained by a faculty member introducing the study to the students. Interested students then signed a sheet, stating their willingness to participate. Signing of this sheet was strictly voluntary. The researcher then met with the students on a pre-determined date and administered the questionnaire to them.

Instrumentation

In order to assess and measure the differences between associate-degree and baccalaureate-degree nursing students and their approaches to patient care, the essay questionnaire developed by Gray (1977) was administered to the participants (See Appendix II). Consent was obtained from the author for use of the instrument before the questionnaires were distributed (See Appendix III). The questionnaire contains open-ended short essay questions based on clinical situations. Essay format was used in an attempt to avoid any suggestion of answers and to allow freedom of response. This allows the respondent an opportunity to utilize higher cognitive domains. An unlimited amount of time was allotted to complete the questionnaire.

Validity and reliability

Validity and reliability of the questionnaire was established in previous studies. The validity of the essay-type questionnaire was obtained in two categories: logical and empirical. Logical validity, sometimes called content validity, was established by Giger and Davidhizar (1991), determining if the items described depicted an accurate analysis of the state of art in nursing. A panel of fifteen experts in the areas of nursing administration and nursing education were asked to suggest alternatives for items, if any question appeared ambiguous, difficult or inappropriate. They found no need for revisions in the questions. Also, these same fifteen experts evaluated the supporting key. Unlike the questionnaire, there were changes made according to the information obtained from the panel of experts to reflect the profession of nursing.

Another type of validity, called empirical, was established by examining underlying dimensions of the essay questionnaire. A strong correlation was found between the item option (the response that was given) and the three categorical nursing descriptions:

professional, technical, and all-nurse. The supporting key described pre-set answers at all three of these levels. Respondents reacted, independently, to each item in a manner consistent with the supporting key which outlined pre-set answers. The expected relationship was found in all the test items. It could be concluded then, that the questionnaire was considered valid because the modified factor analysis was deemed appropriate.

Reliability was established by Giger and Davidhizar (1990) by administering the essay questionnaire to fifteen senior baccalaureate students on two different occasions. After analysis of the results, reliability was supported at the .01 significance level. Thus, stability across time was indicated.

A demographic sheet accompanied the questionnaire and was administered by the researcher to the sample of students (see Appendix II). Information was requested from each subject on 1) age, 2) gender, 3) marital status, 4) responsibility for dependents, 5) scholastic aptitude test scores, 6) current grade point average (G.P.A.), 7) an associate degree or baccalaureate

degree in another discipline, 8) nursing program currently attending, and 9) work experience. The demographic instrument was utilized in order to identify independent variables that might influence the responses.

These categories were chosen in an attempt to control for other variables which could affect the subjects' theoretical approaches to patient care. The variables chosen were based on the findings in the literature. For instance, men in nursing report experiencing role strain in attempting to reconcile their gender role with their occupational role. Men in nursing frequently choose psychiatry, anesthesiology, or administration as occupational areas. These areas "...diminish the perceived role strain because they require less physical contact with clients, frequently mandate no special clothing that signals 'nurses', and often provide a greater degree of autonomy" (Flanagan, 1982, p. 171). In addition, a study by Brigham (1989), revealed that age, quantitative SAT scores, and grade point averages were positively correlated to critical thinking. In Deback and Mentkowski's 1986 study, 'education' was found to promote a broader range of

ability in the clinical setting, than 'experience'.

Furthermore, it was found that BSN nurses demonstrated more nursing competencies compared with their ADN counterparts. A study by McCloskey and McCain (1981), utilizing 70 ADN-prepared and 188 BSN-prepared nurses, indicated that the amount of experience was the best predictor of critical care skills and that the total years of education (from both nursing and non-nursing degree programs beyond high school distinguished top and medium performers from poor performers. It was presumed that there was literature stating that those who were married, and were responsible for dependents, would be more nurturing and care-giving; however, none of this literature was found.

Treatment of Data

The literature that was reviewed indicated a need for further studies to determine differences in practice between technical and professional nursing students, so an essay-type questionnaire was administered to 17 baccalaureate-degree nursing students and 13 associate-degree nursing students. The questionnaire was chosen as a result of the 1977 study

by Gray, et al. The answers to the questions were in narrative form which involves qualitative data. Therefore, content analysis was used to take the information and break it down into individual units of analysis.

Key phrases were identified from the subjects' answers and were coded according to the existing key (see Appendix IV). For example, if a subject answered in response to a clinical situation, that they would "restock supplies" when they had some extra time, the key was searched for the words, "restock supplies". It was then evaluated, according to the key, as being a technical, professional, or all-nurse response. In this example, the subjects' answer would be classified as being a technical answer.

A new key was developed from the original by fifteen nurse practitioners in Giger and Davidhizar's study (1990). Five of the fifteen nurses held a masters in nursing and a doctorate in nursing and/or a related field and the other ten held a master's in nursing. The key was sub-divided into three categories which included professional, technical and the all-nurse category. Consent from the author was

obtained to use the revised key in this study. (See Appendix III).

The panel of nurse practitioners perceived the term competence as being descriptive of personal abilities which are developed by students in particular programs. The professional category was developed to reflect those competencies expected of baccalaureate graduates, whereas the technical category was developed to reflect those competencies of associate degree graduates. The all-nurse category reflected characteristics and behaviors expected by nurses whether associate or baccalaureate degree. The revised key was further subdivided to encompass four broad areas of nursing which included nursing process, nursing diagnosis, concept analysis and theoretical identification. However, the researcher decided to omit these further subdivisions due to time restrictions, low sample size, and missing data.

A coding scheme was developed at the time of the pilot study to organize the collected data. The data were analyzed using the BMDP statistical computer package. In the circumstance of missing data, blank spaces were used so that any questions unanswered were

considered "missing" by the computer. A parametric t-test was initially applied to the data. The accepted level of significance was .05.

One point was assigned to each response that fell under the category of a technical, professional, or all-nursing action. Differences in the mean scores between senior nursing students of the associate degree and professional degree programs in the "professional," "technical," and "all-nurse" categories were obtained. The total in "professional," "technical," and "all-nurse" categories from each program was also obtained.

Also, the variables of age, G.P.A., number of months working on a given unit, and number of hours worked a week, were more closely examined to see what effect they had on the total number of professional points, technical points, or all-nurse points. The clinical area was also more closely examined; however, the sample was too skewed with a lot of people working on a medical-surgical unit, and a lot of people working in "other" areas. There were only one or two people who worked in each of several given areas other than the medical-surgical one. As a result, no useful data was found when the different areas of work were

compared.

Cut-off points were selected for each numerical demographical variable and categories were combined for other demographical variables as follows: (1) for the "age" variable, the groups were defined as being less than or equal to thirty years old, and over thirty years old (2) for the "number of months working" variable, the groups were defined as working less than or equal to twenty-four months on a given unit, and working more than twenty-four months on a given unit (3) for the "number of hours worked" variable, the groups were classified as working less than or equal to thirty hours a week, and working more than thirty hours a week, and (4) for the "G.P.A." variable, the groups were defined as having a G.P.A. less than or equal to a 3.0, and having a G.P.A. more than a 3.0. The next chapter will discuss the results and summarize conclusions related to past research.

Chapter IV

Analysis of Results

The focus of the results obtained from statistical analysis was to measure differences in practice between associate degree and baccalaureate degree nursing students and their approaches to patient care. It was based upon information provided from 13 ADN students, and 17 BSN students. (Originally, there had been 19 BSN students, but two of the subjects were eliminated due to the fact that two or more questions were left entirely blank.)

The demographic data of the two groups of students are summarized in Table 1. It is interesting to note that the ADN students have an average age ten years more than the BSN students (37 years old for the ADN as compared to 27 years old for the BSN). Also, it is somewhat interesting to see that only 77% of the ADN students work as compared to 100% of the BSN students.

Table 1. Characteristics of Sample Subjects.
(n= 17 BSN students, 13 ADN students)

Characteristics	BSN	ADN
average age (in years):	27	37
median age (in years):	25	34.5
range of ages:	21-38	22-53
gender:		
number of males	1	1
number of females	16	12
marital status:		
number of married	7	10
number of widowed	0	0
number of single	9	1
number of divorced	1	2
number responsible for dependents	2	6
mean SAT score	974.4	1087.5
mean G.P.A. (on a 4.0 scale)	3.07	2.97
degree in another discipline	4	3
work experience:		
amount		
number of full time	2	4
mean in hours	44	39.5
number of part time	12	5
mean in hours	22.2	20.8
number of casual	3	1
mean in hours	6	not given
number not working	0	3
shift		
7-3	10	0
3-11	6	6
11-7	1	4
area		
number in med./surg.	8	5
mean in months	11.5	31.2
number in ICU	2	0
mean in months	90	-----
number in rehab.	0	1
mean in months	-----	24
number in CCU	0	0
mean in months	-----	-----
number in OB/GYN	0	0
mean in months	-----	-----
number in other	6	4
mean in months	37	220.7

Senior ADN students tended to rank higher on the test total score and received more technical points than did senior BSN students. The latter group scored higher on the professional points. On all-nurse points, the ADN students had higher mean scores (See Table 2).

Table 2. Mean Score Differences and Their Significance Levels for the Various Categories on the Essay Questionnaire.

Categories		Mean Scores	p-value for t-Test
Professional Points	BSN	11.1	.23
	ADN	10.0	
Technical Points	BSN	7.1	.12
	ADN	8.9	
All-Nurse Points	BSN	12.5	.39
	ADN	13.7	

Differences between the total scores of each group, their professional points, and their technical points were analyzed by using t-tests with a .05 significance level. No significant differences between the two groups were found in the categories of professional, technical and all-nurse (See Table 2).

Table 3. BSN and ADN Subjects' Scores on the Essay Questionnaire Ranked According to Total Points.

BSN Scores				ADN Scores			
rof	Tech	Both	Total	Prof	Tech	Both	Total
8	2	8	18	7	6	14	27
8	6	8	22	7	8	12	27
11	2	9	22	12	7	10	29
9	3	11	23	8	6	15	29
10	6	10	26	10	12	10	32
11	9	6	26	11	9	13	33
10	5	15	30	6	12	15	33
11	8	11	30	10	10	13	33
13	7	10	30	15	9	11	35
11	6	16	33	10	10	17	37
11	11	11	33	12	7	18	37
8	5	21	34	13	10	18	41
10	12	13	35	16	14	12	42
17	3	18	38				
14	12	13	39				
11	11	18	40				
14	12	15	41				

A closer examination of certain variables from the demographic questionnaire revealed some possibly interesting but inconclusive results. Those who were less than or equal to thirty years old, and worked less than or equal to thirty hours a week had higher total professional points and technical points, than their

counter-group (above the cut-off points). However, the data also revealed that those who have worked less than or equal to twenty-four months on a given unit scored higher in the total number of professional points and all-nurse points. This information did not suggest any trends that age, number of hours worked a week, or number of months worked on a current unit, affected the outcome of total points in a given category.

In contrast, those who had a G.P.A. higher than a 3.0 were found to have a higher number of points in all three categories. The researcher hypothesized that those with G.P.A.'s higher than 3.0, would ultimately have higher scores in all of the categories, if they simply gave more responses than those who had less than or equal to a 3.0 G.P.A. However, a t-test was conducted to compare those with G.P.A.s higher than a 3.0 to those with G.P.A.'s lower than a 3.0 (see Table 4). No significant difference between average scores was found. However, the p-values for the t-tests, comparing the professional score and the all-nurse score, were both less than .2. So, it was thought that with a larger sample size, possibly significance would be found. A two-way analysis of variance was

also performed to see if there was any interaction between the nursing program and the G.P.A. No significance was found, but once again, it was thought that a larger sample size may possibly produce significant results.

Table 4. Mean Score Differences, Standard Deviations, and Their Significance Levels for the Various Categories in Comparing G.P.A.'s.

Categories	Mean Score	Standard Deviation	p-value for t-Test
Professional Points			
GPA <= 3.0	10.1	2.2	.15
GPA > 3.0	11.4	2.6	
Technical Points			
GPA <= 3.0	7.8	3.1	.83
GPA > 3.0	8.1	3.5	
All-Nurse Points			
GPA <= 3.0	12.1	3.7	.19
GPA > 3.0	13.9	3.5	

The top BSN total score (41) was in the upper third of the ADN group (37-42). Also, the lower third of the BSN group (18-26) fell below the lower third of the ADN group (27-32). The middle third of the BSN group (30-33) also fell below the middle third of the ADN group (33-35).

The top ADN total score was only one point higher than the top BSN total score. The ADN overall mean was 32.7 with a range of 27-42; the BSN overall mean was 30.6 with a range of 18-41. On the average, it took the ADN students longer to complete the questionnaire than the BSN students. The ADN students took an average of 43.1 minutes (with a range of 30-60 minutes) and the BSN students took an average of 29.1 minutes (with a range of 17-45 minutes).

Interpretation of Results

There were no statistically significant results found from analyzing the data. Since the subjects were recruited through a contact person, and participation in the study was strictly voluntary, there was a problem with a limited sample size. Perhaps subject interest would increase if done primarily through the researcher, since a contact person may not be able to motivate the subjects as well as the researcher could.

There seems to be a trend similar to the one found in Gray et al.'s study (1977), and Womelsdorf and Atkinson's pilot study (1991), so it is thought that significance may be found if the sample size was increased. According to the trends observed in this

study, Baccalaureate degree nursing students seem to act more professionally in nursing care situations, as established by scoring higher in the professional category, whereas their counterparts, associate degree nursing students tend to think in technical terms, as evidenced by a higher score in the technical category.

It was also interesting to note that, along the same lines as the study performed by Deback and Mentkowski (1986), the impact of education seems to be independent from the impact of experience. There was no relationship between whether or not students work in the hospital setting and the amount of all-nurse points scored. For example, the BSN student with the highest number of all-nurse points (21), works part-time (32 hours per week) on an intensive care unit. On the other hand, the ADN students with the highest number of all-nurse points (18) do not work anywhere at this time.

Similarly, it is interesting to note that even though only 77% of the ADN students worked, as compared to 100% of the BSN students, the ADN students had a higher number of all-nurse points (13.7) than the BSN students had (12.5). This supports the concept that

although work experience is an important factor in the development of effective practitioners, the level of education impacts a broader range of behaviors than does work experience (Deback & Mentkowski, 1986).

Even though the associate degree nursing students had a higher average age of 37, median age of 34.5, and age range of 22-53, number of professional points were lower than that of the baccalaureate degree students whose average age was 27, median age was 25, and age range was 21-38. This indicates that the amount of experience may not be related to the depth of an individual's knowledge base and that education plays an important role in modeling the students' approaches to patient care.

In addition to these interesting findings, a careful examination of the data revealed trends that seemed to follow those from Gray et al.'s study (1977), and Womelsdorf and Atkinson's study (1991). In the next chapter, the results will be discussed as they pertain to past research findings. Limitations and important implications are introduced as well as suggestions for future research.

Chapter V

Summary and Conclusions

The essay-type questionnaire developed by Judith Gray (1977) was used in this study. The null hypothesis proposed in this study was: Senior nursing students of baccalaureate and associate degree programs do not vary in their conceptual and theoretical approaches and therefore will have no significant differences in their answers to essay questions pertaining to specific nursing situations. The data of this particular study was analyzed and, in accordance with the analysis, the hypothesis was accepted, and, in fact, could not be rejected.

Since the subjects were recruited through a contact person, and participation in the study was strictly voluntary, there seemed to be a problem with a limited sample size. But, the t-tests produced p-values in this study ($p = .23$ for professional points, and $p = .12$ for the technical points) closer to significance than those in the pilot study ($p = .28$ for professional points and $p = .41$ for the technical points). It is thought that if the sample size would be increased, significance of professional and

technical points may be found.

The data shows that no significant differences were found between the associate and baccalaureate student nurses and their approaches to patient care, as determined by analyzing and separating responses into categories of being professional, technical, or all-nurse. However, there was a trend noted that followed the one found in Gray et al.'s (1977) study and Womelsdorf and Atkinson's (1991) study. Baccalaureate degree nursing students scored higher in the professional category with a mean of 11.1, than did the associate degree students with a mean of 10.0. This is evidenced by the fact that the number of professional responses, answered by the associate degree nurses, ranged from 6 to 16, and both extremes of this range are lower than the range of the professional responses given by the baccalaureate nursing students (8-17).

Also, it can be noted that the associate degree students scored higher in the technical category than did the baccalaureate degree students. This can be seen by taking a mean score of the number of technical responses given by each group. The associate degree

students had a lower mean of 7.1, whereas their counterparts had a higher mean of 9.2. This is consistent with the findings of Giger and Davidhizar which indicates that graduates of associate and baccalaureate degree programs do vary in conceptual and theoretical approaches to nursing care (1990), suggesting that perhaps there should be a dual-entry level of nursing practice implemented which emphasizes the baccalaureate degree as the minimal entry-level for professional nursing practice.

Implications for Nursing

It is true that individuals in either group of students, regardless of the amount of provided education (two years versus four years), will eventually be hired for approximately the same jobs with approximately the same responsibilities and pay. However, Deback and Mentkowski (1986) noted that less-educated nurses fail at conceptualizing because of an inability to recognize relevant relationships. It is the more educated nurses who take on responsibilities for judgment, take on advocacy roles and act more independently. Furthermore, Johnson (1987) found that differences in concerns of associate degree versus

baccalaureate degree nurses were significantly related to the way the two distinct groups had been educated. The baccalaureate and associate degree nurses performed their distinct roles according to the separate preparations provided for them.

It is for the previous reasons presented that the findings of this study are important. If, in fact, the two groups do differ in their approaches to patient care, than perhaps roles need to be differentiated in nursing practice. And, if it is true that baccalaureate nurses, given time to acquire experience, will be most effective in professional job performances (Deback & Mentkowski, 1986), then a clear distinction should be made between the technical, associate degree nurse, and the professional, baccalaureate degree nurse. After all, the occupation of nursing is viewed by many as being a profession and not just a job.

A contrary opinion, one not endorsed by the researcher, is to promote a change in nursing education. If both associate and baccalaureate degree students are going to be hired as registered nurses, then educational preparation in both programs should be aimed at overall nursing care, not focused on

professional qualities as in the baccalaureate programs, or technical qualities as in the associate degree programs. If educational programs were coordinated to provide the same types of information, then maybe the students would not acquire differentiating qualities, which affect their patient care concepts. This, in turn, may resolve the need for role differentiation and responsibility in nursing practice.

Future Studies

A number of considerations should be taken into account for future studies. The use of a larger sample size would be beneficial to this area of study. Generalizability was limited due to the small number of subjects used. It would also be helpful to use subjects from a variety of institutions, not just two. This would allow for a broader representation of educational preparation given to the students, which may have a significant impact on the study's findings.

Also, it may be helpful to eliminate certain variables among the subjects, in order to decrease the possibility that responses may be influenced. For, instance, if all of the subjects were exactly the same

age, then age could not be a factor in the differences of responses.

In addition, it may be beneficial if subjects are obtained on a volunteer basis by the researcher alone. Perhaps the researcher should describe the study and have volunteers sign a sheet. The hope is to arouse the interest of the subjects first, motivating them to show up on the testing day, and not having to rely on a third person (in this case, a nursing instructor), to try to generate interest and motivate them showing up at the appropriate time.

Finally, there need to be changes made in analyzing the data. For optimal results, one should take the data and look for themes, categories, and distinctions that emerge from initial analysis of the data, instead of having a pre-existing key (which limits the responses that can be categorized). For instance, in question number two of the questionnaire, it is indicated that Mr. J. is a diabetic who smokes. A number of students responded that information should be provided to Mr. J. about being a smoker and having diabetes; however, nothing even closely related to this was noted under any of the three categories

(professional, technical, or all-nurse) in the key. And, anyone who follows nursing as a career, will tell you that smoking can have great implications for a diabetic. Of course, a true content analysis is more difficult and time consuming.

Furthermore, in the coding as used, if a subject gave several responses that were different, but pertained to a similar idea, he/she received only one point for each phrase that was listed in the key. The previous recommendation of data analysis would allow for recognition of multiple responses (no matter how similar or different) under each category. Perhaps this would show the depth of knowledge being used by the BSN and ADN nurses, and help support the validity of the contention that the functioning of an ADN graduate is "...limited in scope but not in depth" (University of Vermont, 1972, p.2). In addition, the inclusion of a creativity score, given for unique answers, may provide information about another important dimension in nursing practice.

Appendix I

Subject Consent Form

Subject Consent Form

Student:

I am a senior baccalaureate student at Lycoming
ege and am currently interested in studying the
erences in theoretical approaches to patient care
een associate degree and baccalaureate-degree
ing students. The information obtained from the
ect may help foster the growth of education in
ing programs.

Participation in the project consists of
leting the attached essay-type questionnaire
loped by Judith Gray. Also included with this
et are demographic questions that provide
tional information. You may have as long as it
s to complete the necessary information.

Participation is strictly voluntary and there is
isk to you in completing the questionnaire. By
leting this questionnaire, it will be assumed that
have given your consent to participate in the
y. You are free to withdraw from the study at any
. I ask that you answer each question thoroughly
to the best of your ability. All of the
rmation you provide will be completely confidential
will not be identified with your name in any way.

Sincerely,

Amy N. Atkinson

Appendix II

Demographic Questionnaire

Background Information

_____

check one):

le _____

ale _____

al Status: Married _____ Widowed _____
Single _____ Divorced _____

ou the primary caregiver for children, parents, or other dants? Yes _____ No _____

(combined) scholastic aptitude test score: _____

ative Grade Point Average: _____

you have an associate degree or baccalaureate degree in er discipline? (check one) Yes _____
No _____

yes, please specify the discipline. _____

ng program currently attending (check one): ADN _____
BSN _____

ployment status (check one):

Full time _____ Casual _____

Part time _____ None _____

urs worked per week: _____

imary shift worked (check one): 7-3 _____
3-11 _____
11-7 _____

rk setting (check one):

Medical/Surgical	_____	CCU	_____
ICU	_____	OB/PEDS	_____
Rehab	_____	Other (please specify)	_____

ngth of time at current unit (floor): _____

Appendix III

Essay Questionnaire

Essay Questionnaire

G. is a 42-year-young woman who has had rheumatoid
s (a chronic degenerative disease affecting joints) for
. The disease has just recently begun to affect the
of her shoulder joints. As her nurse, you are supposed
rage her to do range of motion exercises to her arms, so
oid further tightening in her muscles during this period
se remission. When you tell her that you'd like to help
hrough these exercises, she abruptly refuses to do so.
ask her why, she says, "Please. . .just stop bothering
way and leave me alone."

does this patient most need from you in this specific
n?

what you would <u>do</u> and <u>say</u> in this situation. If you
o talk to her, write out the words as you'd actually say

following is a list of facts about Mr. J.:
45 years old
works as a traveling salesman
smokes a pipe one or two times daily
has two teen-age children (girl 14, boy 17) and wife at
ıome
diabetic (diagnosis of 5 years ago)
had a cholecystectomy (removal of gallbladder) a few days
ago which is the reason for this current hospitalization

ıow as many areas as you can that you would assess, to
vhether patient education is necessary.

are employed as the nurse in a doctor's office(general
ioner). There is also a secretary working there who
the telephone, arranges appointments, and works with the
. The doctor tells you that he wants you to take the
weight, and vital signs of each patient, get them set up
examination room, and administer any medications and
nts he may request. Otherwise, you can use your time as
most appropriate.

low specific examples of what you might do with the rest
time. Give as many specific examples as you can.

are one of several nurses on a surgical unit. It is 1:30
your shift ends at 3P.M. Tomorrow is a holiday, there
scheduled admissions. The treatments are done, the
ions are passed, and there are no call lights on. At the
station are two medical students, one resident and five
urses. One of the nurses says to you, "I'm bored, I wish
as something to do."

many possibilities as you can think of that could be done
the best use of the remaining hour and a half.

B. has just arrived at the emergency room with her 18-
ld son, Timothy. She reports that Timothy fell from his
ring his nap time this morning. She was next door having
with the neighbor at the time. Even though no one else
home, she felt comfortable leaving him because he usually
for at least an hour.
observe that Timothy is drowsy and has difficulty holding
d erect. He has a two-inch scalp laceration which is
g profusely. In addition, his scalp has areas of
g, his left arm is crooked, and his back and both arms
ling and newly bruised ares. Mrs. B. appears very
and apprehensive. She seems almost totally involved in
feelings even though Timothy is on the examining table in
e room. The doctor has been notified about this
on, and he is due to arrive in about an hour.
Column I is a list of the observations that you have made.
e in Column II possible cause(s) for each factor observed
I). In Column III write the action(s) that you might
f any.

n I ation)		Column II (Causes)	Column III (Actions)
thy's ess	A.		A.
ficulty head	B.		B.
eration	C.		C.

ued)

n I ation)	Column II (Causes)	Column III (Actions)
ip g	D.	D.
oked arm	E.	E.
ised areas	F.	F.
othy's on	G.	G.
B.'s	H.	H.

s. W. was admitted to the hospital following a one-car
oile accident in which she was the only person involved.
d sustained the following injuries as a result of the
nt: a) compound fracture of right femur
b) multiple fractured ribs with resulting hemothorax
c) multiple minor facial lacerations.
alert. Her treatments included: Tracheostomy attached to
uous Byrd respirator, closed chest drainage to suction
ottle type to wall suction), Thomas splint with Russell's
on (skeletal suspension traction), NPO, intravenous fluid
y.

elow the nurse's responsibilities in relation to the
ing four aspects of her care. Make your list complete and
e.
acheostomy with Byrd respirator
est drainage
action
travenous fluid therapy

Appendix IV

Key

Key

Question 1A

Professional

1. Problem solving guidance (what ways could the nurse affect or encourage the patient to engage in range-of-motion with the least discomfort? P-1-III-1

2. Teaching patient methods of active range-of-motion and need for. P-2-II-4

3. Location of Teaching Aids about Rheumatoid Arthritis and the need for exercise, e.g. charts, pictures, diagrams, and pamphlets. P-3-I-III

4. Patient teaching in the activities of daily living so that patient may become functionally independent. P-4-II-3

5. Utilize a teaching-learning concepts to ascertain patient learning needs. P-5-I-3

1. Active listening. B-1-II-3

2. Acceptance of feelings with a non-judgmental attitude. B-2-II-2

3. Encouragement to verbalize feelings and anxiety. B-3-IV-I

4. Answer questions. B-4-II-5

5. Explanations. B-5-II-3

6. Promoting environmental comfort and emotional support. B-6-II-3

nical

1. Passive range-of-motion regardless to the degree of discomfort. T-1-II-4

stion 1B
ofessional

1. Accept patient as is, respect as a person, remain non-judgmental. P-1-I-1

2. Do not question oneself, or feel rejected. P-2-I-2

3. Do psychological and behavioral assessment. P-3-III-2

4. Formulate a nursing diagnosis, and then base a plan of care on this diagnosis. P-4-III-3

5. Actively listen, be honest and open. P-5-I-5

6. Remain patient

7. Be comfortable with one's own attitudes, feelings, etc. P-7-I-1

8. Health teaching. P-8-II-5

9. Provide a corrective emotional experience. Help see behavior as unacceptable. P-9-I-1

0. Involve patient in decision-making. P-10-IV-1

h
1. Encourage patient to verbalize anxieties. B-1-II-2

2. Active listening. B-2-II-3

3. Setting limits. B-3-I-4

4. Providing support. B-4-I-4

hnical
1. Set the pace for patient and adjust the climate of the hospital unit, e.g. make all decisions. T-1-II-4

2. Promote safety. T-1-II-4

3. Insist that the patient stop the intolerable behavior. T-3-II-2

4. Encourage patient to participate, T-4-II-3

5. Leave alone and return later, T-5-II-3

estion 2
rofessional

1. Assessment of family unit and cohesion of this unit, coping mechanism of family unit and individual members and assessments, cultural background. P-1-IV-1

2. Assessment of knowledge of need for Dietary habits. P-2-III-4

3. Adjustment of patient and family to the stresses of middle age. P-3-III-2

4. Methods of relaxation and ways to cope with the stress of life. P-4-I-1

5. Exercise habits and method of. P-5-II-4

6. Work habits and stress associated with work. P-6-III-1

7. Knowledge of social referrals for dealing with stresses. P-7-IV-2

8. Assessment of patient understanding and need for teaching what contributing factors does stress have. P-8-IV-I

oth
1. Knowledge of the reason for Cholecystectomy and need for follow-up care. B-1-II-2

2. Needs for emotional support (psychological area). B-2-III-5

3. Needs for explicit explanations. B-3-I-3

4. Need to verbalize feelings about self, condition, etc. B-4-III-3

5. Need to review health education materials. B-5-II-3

6. Need to have additional instructions about medications, treatment and any other procedures associated with diabetes. B-6-II-2.

echnical
1. Diabetic management (awareness of nutrition, insulin, techniques, etc.). T-1-II-2

2. Knowledge of wound care. T-2-II-2

Question 3

Professional

1. Checking to see what health materials are available in waiting room. P-1-I-1
2. Develop nursing care plan for clients. P-2-II-2
3. Help patient formulate questions for phsysician. P-3-III-3
4. Assessment of patient needs. P-4-IV-1
5. Assessment of family unit. P-5-IV-1
6. Take history and physical (update as needed) P-6-IV-2
7. Application of research methodology. P-7-IV-5
8. Observation of patient behavior or group dynamics. P-8-I-1
9. Observe areas for patient teaching and provide as needed. P-9-IV-3
10. Interpretation of role of nurse (to doctor, patient, family) etc. P-10-II-5
11. Assess learning needs. P-11-IV-1
12. Social Referrals as support mechanism. P-2-IV-1

Both

1. Assess patient understanding. B-1-I-3
2. Give instructions for medication, treatments, and etc. B-2-II-3
3. Provide health education materials. B-3-II-3
4. Active listening to patient concern. B-4-II-3
5. Provide emotional support and acceptance of patient. B-5-III-2
6. Explanation of all procedures. B-6-III-3
7. Reinforce doctor's instruction. B-7-III-3
8. Assist doctor with examination. B-8-II-3
9. Laboratory work (scheduling of) drawing up. B-9-II-5

estion 3

10. Answer questions. B-10-II-3

11. Chart appropriatly. B-12-II-3

echnical

1. Cleaning and restocking supplies help secretary answer phones. T-1-II-3

2. Checking mechanical equipment to make sure it remains functional(e.g. stethoscope, b/p cuff, etc.) T-2-II-3

estion 4
Professional

1. Update and formulate nursing care plans utilizing appropriate nursing diagnosis. P-1-IV-3

2. Conduct a ward conference on a particular patient or area of concern or prepare inservice for staff. P--2-IV-2

3. Update patient progress notes and do discharge planing. P-3-IV-4

4. Health teaching to a group of patients with similar needs. P-4-II-5

5. Patient teaching on individual basis. P-5-II-5

6. Application of Research Methodology to an area of concern. P-6-II-5

7. Assessment of environment forces on patients. P-7-I-1

8. Meet with other members of health team for knowledge update in these areas, e.g. (dietary, physical therapy. P-8-III-4

th

1. Assess patient understanding. B-1-III-1

2. Instruction to patients about medication, treatments, diets and treatments. B-2-III-3

3. Gather and distribute health educational material. B-3-III-3

4. Spend time listening to staff concerns. B-4-II-3

5. Spend time listening to patient concerns. B-5-II-3

6. Updating nursing knowledge on basic skill procedures. B-6-II-3

Question 4

7. Promote environmental comfort. B-7-II-4

Technical

1. Cleaning work area. T-1-II-3

2. Restocking supplies. T-2-II-3

3. Re-ordering supplies. T-3-II-3

4. Sending back out-dated equipment. T-4-II-3

5. Check charts. T-5-1-1

6. Work in medication. T-6-1-1

Column I	Diagnosis	Treatment
A. Timothy's drowsiness.	1. Lethargy due to increased intracranial pressure caused by hemmorrhage or probable concussion. P-1	1. Assess level of responsiveness. P-1 A. Responds to commands. P-1 B. Assessment of spinal motor reflexes. C. Observation of spontaneous activities. 2. Check vital signs to correlate above findings. P-2 3. Ask mother for additional details. P-3 4. Correlate findings with current neurological findings. P-4
B. Difficulty holding head	2. Extremities becoming flacid and absence of reflexes. P-2	1. Assess respirations. P-1 2. Assess pupil reponses. P-2 3. Attempt to reinitiate reflex responses. P-3 4. Clear airway to prevent obstruction. P-4 5. Immobilize head & neck. P-5
C. Lacerations	3. Hit by sharp object, or fall from crib. Questionable child abuse. P-3	1. Maintain Patient airway. P-1 2. Check literature available for common causes of falls for children. P-2 3. Check available literature on signs of recognizing parental child abuses. P-3 4. Attempt to reevaluate neurological status. P-4 5. Apply pressure and bandages. P-5

		2. Reevaluate neurological signs. P-2 3. Pad side rails in the event of seizures. P-3 4. Continue to assess varying degrees of restlessness. P-4
E. Crooked arm.	5. Fracture, broken or dislocated prior to fall. P-5	1. Assess the mobility of the arm. P-1 2. Ask mother when this occurred. P-2 3. Remain non-judgmental. P-3 4. Assess level of pain and degree of dis-location of the skin around area. P-4 5. Contact social worker. P-5 6. Contact proper authorities e.g. (child welfare division). P-6 7. Explore the underlying theme of Mrs. B's anxiety. P-7
F. Bruised areas	6. Contusions caused by stiking on other occasions. P-6	1. Completely undress and drape child. Examine body for additional bruised area. P-1 2. Assess for falling B/P, cold clammy skin, and rapid thready pulse. P-2

		standing orders (if necessary until doctor arrives). P-3 4. Update physician per phone on child's general condition. P-4
G. Timothy's general condition.	7. Possible fractures, and neurological injuries associated with possible child abuse. P-7	1. Reconfer with social worker, and child welfare officer. P-1 2. Evaluate family unit. P-2 Do complete historical assessment. P-3
H. Mrs. B's anxiety	8. Guilt associated with child's condition and possible childhood problems. P-8	1. Encourage Mrs. B. to verbalize feelings of anxiety. P-1 2. Encourage Mrs. B to understand what the outward signs of anxiety indicate. P-2 3. Confer with Mrs. B in presence of social worker and child welfare officer. P-3 4. Encourage Mrs. B to verbalize own childhood experience. P-4 5. Ask physician for psychiatric referral for Mrs. B. P-5

A. Timothy's drowsiness.	increased intracranial pressure. B-1	iveness B-1 2. Take vital signs. B-2 3. Assessment of spinal motor nerves. B-3
B. Difficulty holding head up.	2. Extremities becoming flaccid and absence of reflexes. B-2	1. Assess vital signs. B-1 2. Clear airway to prevent obstruction. B-2
C. Laceration.	3. Contusion caused by sharp object, or fall. B-3	1. Maintain patent airway. B-1 2. Re-evaluate neurological status. B-2
D. Scalp swelling	4. Possible hemmorrhage and increased intracranial	1. Check level of responsiveness. B-1
E. Crooked arm.	5. Fracture, broken or dislocated prior to fall. B-5	1. Assess mobility of the arm. B-1 2. Remain non-judgmental. B-2 3. Assess level of pain and degree of dislocation. B-3

		cold clammy skin, and thready pulse. B-2 3. Continue to assess physical status. B-3
C. Timothy's general condition.	7. Possible fractures and neurological injuries caused by fall. B-7	1. Update physician per phone on physical status. B-1
D. Mrs. B's anxiety.	8. Guilt associated with child's condition and possible childhood problems. B-8	1. Encourage Mrs. B. to verbalize feelings of anxiety. B-2
Technical Response		
A. Timothy's drowsiness.	1. Lethargy due to increased intracranial pressure caused by hemmorrhage. T-1	1. Check vital signs. T-1 2. Assess level of responsiveness. T-2 3. Prepare equipment for neurological examination for physician. T-3
B. Difficulty holding head.	2. Extremities becoming flacid and absence of reflexes. T-2 Fall on head. T-2	1. Assess respiration T-5 2. Clear airway. T-2 3. Restock emergency trays T-3

		status. T-2 3. Check neurological equipment to ascertain that it works for physician. T-3 4. Stop Bleed T-4 5. Clean & dress T-5
D. Scalp swelling	4. Possible hemmorrhage and increased intracranial pressure. T-4	1. Check level of mobility of arm. T-1 2. Reevaluate neurological signs. T-2 3. Ice compresses T-3
E. Crooked arm.	5. Fracture, broken or dislocated because of fall. T-7	1. Check level of mobility of arm T-1 2. Keep arm immobilized. T-2 3. Check splint and cast room to ascertain that proper equipment available for doctor (if arm needs to be splinted or placed in cast). T-3

	unknown). T-6	2. Undress child, drape and wait for physician to arrive.
G. Timothy's general condition.	7. Possible fractures and neurological injuries associated with fall from crib. T-7	1. Prepare necessary equipment for physician (e.g. cast mixture, splints, administration of pain medication). T-3
H. Mrs. B's anxiety.	8. Guilt associated with allowing child to be alone thus precipating the fall. T-8	1. Ask physician to talk with Mrs. B when he arrives. T-4

Question 6

I. Tracheostomy with Byrd respirator

Professional

1. Assess respirator status. P-1-1-1
   A. Tidal volume.
   B. Vital capacity.
   C. Minute volume.
   D. Inspiratory force.
2. Assess and compare laboratory finding and chest x-rays. P-2-IV-1
3. Formulate a plan of care utilizing nursing process. P-3-IV-1
4. Reevaluate the plan of care. P-4-IV-1
5. Assess the family unit and need for teaching. P-5-IV-1
6. Do patient teaching (e.g. use of and need for tracheostomy and Byrd respirator). P-6-IV-1
7. Assemble health material for patients with tracheostomy and give to patient and family. P-7-IV-1
8. Assess altered ability to communicate because of tracheostomy (e.g. teach patient other methods of communication, e.g. give paper and pencil, etc.) P-8-IV-1
9. Help patient formulate questions for physician. P-9-1-1
10. Interpret role of nurse to patient and family. P-10-1-1

oth

1. Maintain patent airway. B-1-I-1
2. Provide optimum and adequate ventilation. B-2-II-1
3. Give information. B-3-1-I
4. Explain all procedures. B-4-III-1
5. Alleviate apprehension about asphyxiation. B-5-II-1
6. Maintain and adhere to strict aseptic techniques. B-I-I
7. Note changes in respiratory status. B-6-III-I
8. Assess vital signs. B-7-I-I

Technical

1. Administers sedatives as ordered. T-1-I-I
2. Suction tracheostomy as needed. T-2-I-I
3. Set and maintain control on respirator (as needed). T-3-I-I
4. Change dressing around tracheostomy. T-4-I-I

Chest Drainage

Professional

1. Assess patient understanding. P-1-I-I
2. Assess patient learning needs. P-2-III-I
3. Review pamphlets and literature on chest drainage with patient and family unit. P-3-IV-I
4. Formulate a plan of care and reevaluate plan of care as needed. P-4-IV-I
5. Confer with other health team members (e.g. social worker, respiratory therapist, occupational counselor. P-5-IV-I

6. Application of Research Methodology. P-6-IV-I

Both

1. Maintain chest drainage as ordered. B-1-I-I
2. Take vital signs. B-2-I-I
3. Milk chest tube as indicated. B-3-I-I
4. Assess for hemothorax. B-4-I-I
5. Maintain conscious oral hygiene. B-5-I-I
6. Answers questions. B-6-I-I
7. Give explanations. B-7-I-I
8. Monitor closely for complications, e.g. hemmorrhage, respiratory insufficiency, respiratory failure. B-8-I-I
9. Maintain good nutrition. B-9-I-I
10. Observe for leaks of air in drainage systems. B-10-I-I

Technical

1. Change patient's position to promote drainage. T-1-I-I
2. Prepare chest drainage bottles. T-2-I-I
3. Check vaccum suction. T-3-I-I

3. Traction

Professional

1. Assess patient understanding. P-1-III-I
2. Assess patient-family unit. P-2-IV-I

3. Assemble health-teaching material on skeletal traction and need for. P-3-IV-I
4. Formulate a plan of care for client, reevaluate the plan of care as needed. P-4-I-I
5. Do patient teaching (e.g. teaching the importance of gradual return to activities of daily living. P-5-IV-I

Both

1. Maintain airway. Ensure adequate respiratory exchange and ventilation. B-1-I-I
2. Monitor vital signs. B-2-I-I
3. Make frequent neurological assessments. B-3-I-I
4. Answer questions. B-4-I-I
5. Give explanations. B-5-I-I
6. Maintain body alignment. B-6-I-I

Technical

1. Apply weights to traction. T-1-I-I
2. Set up traction as ordered. T-2-I-I

4. Intravenous fluid therapy

Professional

1. Assess patient understanding. P-1-III-I
2. Assess patient learning needs. P-2-IV-I
3. Assess patient-family unit. P-3-IV-I
4. Review literature about intravenous fluid therapy with patient. P-4-IV-I
5. Formulate a plan of care. Reevaluate the plan of care. P-5-I-I

6. Do additional patient teaching (e.g. so that patient can report significant changes in flow rate, and emptying of bag, and any deviations from proper functioning. P-6-I-I

Both

1. Answer questions. B-1-I-I
2. Give explanations detailing limitations or restrictions. B-2-I-I
3. Monitor flow rate to prevent circulatory overload. B-3-II-3
4. Check for air bubbles (prevent air embolism). B-4-I-I
5. Assess for intravenous complications. B-5-I-I
5. Assess for intravenous therapy on schedule. B-6-I-I

Technical

1. Start intravenous therapy. T-1-I-I
2. Change IV's as ordered. T-2-I-I
3. Reorder additional IV's. T-3-I-I
4. Check needle site for infiltration. T-4-I-I
5. Reorder additional needles/catheters. T-5-I-I

Appendix V

Consent from Authors

The University of Vermont

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ober 3, 1991

Joy Womelsdorf
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oming College
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r Ms. Womelsdorf:

nk you for your interest in our study relating to differences in
ctice between graduates of technical and professional nursing
cation programs.

colleagues and I are pleased to grant you permission to use the
ay questions we developed for our study. The questions are
luded ver batim in our article published in Nursing Research,
tember-October 1977, Vol. 26, No. 5, p. 370.

n enclosing a portion of the key (relating to Question No. 4) to
e you an idea of the process we used to tabulate responses. In
ition, you will find samples of the responses to Question No. 4
n two of the study subjects. Every subjects' responses to each
stion on the examination were tabulated in the same manner as shown
these examples. You may use these as a guide when developing your
key that would be consistent with the philosophy and objectives of
r nursing program.

might be interested to know that Professor Nina M. Sharrad did a
lication of our study at Indiana State University, Terre haute,
iana, in 1982. You may wish to contact her also.

wish you every success with your research and look forward to
rning of your results.

rs in Nursing,

ith E. Gray, M.S., R.N.
artment of Technical Nursing

:blm
losure

Theoretical Approaches

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20 September 1991

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r Amy and Joy:

am pleased to grant you permission to utilize my key for nceptual and Theoretical Approaches". I am enclosing the key scoring the questionnaire. The numbers (e.g. P-2-II-4) are puter codes which are interpreted as follows:

,B	Number	Roman Number	Number Following Roman Numeral
fessional hnical h	Number in Key	Categorical Level	Number in Categorical Description

four levels of categorical descriptions are enclosed. I ld be pleased if you would share your study results with me. I can be of further assistances, please do not hesitate to tact me.

cerely,

Joyce Newman Giger

ce Newman Giger, Ed.D., RN, CS
ir, Department of Nursing

/eb

losures: 1) Key
2) Categorical descriptions

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