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The attitudes of school nurses in special education toward nursing care plans and documentation

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THE ATTITUDES OF SCHOOL NURSES IN SPECIAL EDUCATION
TOWARD NURSING CARE PLANS AND DOCUMENTATION

A Thesis
Presented to
The Faculty of the School of Nursing
San Jose State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Margaret Estrada Fischer
August, 1995

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ABSTRACT

THE ATTITUDES OF SCHOOL NURSES IN SPECIAL EDUCATION TOWARD NURSING CARE PLANS AND DOCUMENTATION

by Margaret Estrada Fischer

ANA's Standards of School Nursing Practice recommend the development and utilization of nursing care plans. The purpose of this study was to explore the use of nursing care plans in the special education school setting where health care interventions are implemented by nonmedical classroom staff. Ten special education school nurses in northern California were interviewed using a heuristic research design and an author-created interview guide. Responses were analyzed using NASN's Standard 2 of the Standards of School Nursing Practice. Findings showed that nursing care plans were not being used. The plans were generally considered too technical and complicated to be meaningful to the classroom staff. School nurses were utilizing a variety of formats, including IEP's and school health care plans. The various methods used by these nurses to plan and document health care are presented, along with recommendations for nursing practice and research.

ACKNOWLEDGMENTS

I dedicate this work to my husband, Hans, and my son, Michael, for it is only due to their love, support, and sacrifices that I achieved this dream. I wish to thank Susan Murphy for encouraging me to pursue my topic of interest and for sharing her invaluable wisdom, insight, and advice. I wish to thank Ginny Young and Nancy Sadik for their generous contribution of time and expertise. And I wish to give a very special thanks to the special education school nurses who participated in this study.

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Chapter 1

INTRODUCTION

One of the standards in Standards of School Nursing Practice published by the American Nurses' Association (ANA) (1983) states that the school nurse is able to develop and utilize nursing care plans to meet the individual health needs of students. In addition, school administrators and school nursing peers may use this standard to evaluate the nurse's job performance (American School Health Association, 1987; National Association of School Nurses [NASN], 1985a). In 1992, NASN adopted an updated version of school nursing standards which were derived in part from ANA's standards of 1983 and included a "plan of care" (Proctor, Lordi, & Zaiger, 1993, p. 7) with characteristics of the traditional nursing care plan.

As a special education school nurse, this author reviewed over 100 school health records of children attending special education classes in California. Many of these students were medically fragile and required nursing services. Nursing care plans were conspicuous by their absence. Some of the health records, instead, contained various types of emergency protocols and procedures developed by the nurses for handling isolated student health problems at school. The records also included standardized summary sheets, which were completed by the nurses and generally contained medical diagnoses (e.g., hydrocephalus) and treatments (e.g., shunt). These forms did not contain nursing diagnoses or expected outcomes, standard components of nursing care plans, and did not consistently show evidence of periodic review and updating.

Thus, there appears to be a discrepancy between what nursing standards stipulate and what school nurses in special education practice. If school nurses are not using the nursing care plan, then either their attitudes toward care planning need to be changed, nursing standards need to be modernized, or nursing care plans need to be adapted to fit this specialized population.

The Problem

The Education for All Handicapped Children Act (1975) and the Education of the Handicapped Amendments (1986) require all states to identify and provide special education and related services to children with disabilities, ranging in ages from newborn to 21 years, and to their families. As a result, school nurses are now striving to meet the health and developmental needs of students with a wide range of learning, mental, emotional, and physical disabilities. The U. S. Department of Education (1993) reported that during the 1991-92 school year, a total of 4,994,169 children with various disabilities received special education services nationwide (an increase of 3.9% from the previous year) and projected that this number would continue to rise. Of this total, 6.7% of the students had " . . . multiple disabilities, hearing impairments, orthopedic impairments, other health impairments, visual impairments, deaf-blindness, autism, and traumatic brain injury . . . " (U. S. Department of Education, p. 9). Children who were once considered too medically fragile to attend school are now enrolled in public schools to receive " . . . a free and appropriate education . . . " (Parette & Parette, 1992, p. 237) in the least restrictive environment. Some of these students require assistive technology to survive, such as respirators, gastrostomies, and colostomies; have actual or

potential life-threatening diseases and disabilities; and have significant developmental delays which endanger their health and safety. School districts are legally responsible for ensuring the safety of these students while at school (Essex, Schifani, & Bowman, 1994). The National Education Association (1990) recommended that every student who requires nursing care at school for a medical condition have a nursing care plan.

School nurses in special education often serve multiple sites. As a result, nursing procedures are being delegated to teachers and paraprofessionals to the extent permitted by nurse practice acts, while the nurses often retain accountability for the staff's actions. Therefore, accurate and appropriate documentation of nursing care in the school setting is extremely important to ensure quality care and to provide a retrievable record of nursing actions for legal purposes. The apparent nonuse of nursing care plans in special education, therefore, needs to be addressed and understood so that communication and documentation are standardized among school nurses.

Purpose and Need of the Study

The usefulness of nursing care plans has long been a topic of debate among practicing nurses, theorists, and educators. Nurses have a responsibility to the population they serve and to the nursing profession to examine nursing standards periodically; to determine their relevance to current practice; and to discard, revise, or adopt new policies and procedures to ensure that the ever-changing needs of society are safely and effectively met. ANA (1980) recognized this professional obligation and the crucial contribution made by nurses in " . . . establishing standards of practice . . . and . . . fostering development of nursing theory, derived from nursing research into those

conditions that are the focus of practice, so as to explain observations and guide nursing actions . . . " (p. 8).

The relevance of nursing care plans to special education school nursing has not been previously researched. Therefore, this study will explore for the first time how school nurses are planning and documenting their care to meet the needs of students with disabilities in the classroom and the extent to which the standard for the use of care plans in school nursing practice is being met.

Research Questions

1. What are the school nurses' experiences with documentation?
2. What are the attitudes of school nurses in special education toward care plans and their use in school?
3. What are the reasons given by school nurses for using and not using nursing care plans in the special education setting?

Definition of Terms

The following terms are defined for the purpose of this study:

1. School nurse is a California Registered Nurse with a baccalaureate degree and a Health Services Credential issued by the California Commission on Teacher Credentialing (Sadik, 1992).
2. Special education is a free, specially developed course of instruction designed to meet the unique and individual needs of students when those needs cannot be met in a regular education program (California Department of Education, 1992).
3. Nursing care plan is a document developed by the school nurse in collaboration with the student, parents, health care providers, and school staff, which contains nursing diagnoses, priorities, goals, measurable objectives,

interventions, and revisions, and is individualized to meet the student's physical, psychosocial, and educational needs (ANA, 1983).

School nurses in special education are facing new and increasingly complex challenges. Not only are they serving a growing population of children with diverse disabilities and medically fragile conditions, but they are also having to delegate nursing services to nonmedical staff. The history of documentation in school nursing reveals that various styles of record keeping evolved to meet the dynamic and increasingly complicated needs of children and their families. Professional nursing and educational organizations recommended the development of health care plans for students with special needs. Therefore, it is important to understand why nursing care plans do not appear to be the written instrument of choice for today's school nurses in the special education setting.

Chapter 2

THEORETICAL PERSPECTIVE AND REVIEW OF THE LITERATURE

The apparent lack of standardization in present-day record keeping among special education school nurses suggests a diversity of opinions on what constitutes a realistic and effective tool for ensuring the health and safety of students. The study of attitudes requires an understanding of human behavior and of the effect of life's experiences on opinions and feelings. This chapter discusses the dynamics of attitude formation from a heuristic perspective. It also presents the evolution of school nursing documentation and the nursing care plan.

Theoretical Perspective

Zimbardo and Leippe (1991) define an attitude as a system that summarizes the following components: (a) behaviors (e.g., performing health assessments), (b) behavioral intentions (e.g., deciding to develop nursing care plans), (c) cognitions (e.g., understanding the standards of nursing practice), and (d) affective responses (e.g., feeling stressed at having to write care plans). Each of these components is interrelated so that a change in one produces a change in the others. Attitude formation is a natural human characteristic and is independent of the extent of a person's experience with the issue in question. Attitudes guide perception and thought, publicly demonstrate personal views, and define the person.

Attitudes function in the following ways (Katz, 1971):

1. They satisfy personal needs by assisting the person to attain desired goals.

2. They protect the person's ego by acting as defense mechanisms.
3. They align the person's self-identity more closely with personal and peer group values.
4. They provide the person with knowledge or a frame of reference by which to understand the world.

An assumption of this author is that attitudes may be revealed through behavior. The absence of expected behavior, such as the nonuse of nursing care plans, indicates an unfavorable attitude toward care plans. This explanation is based in part on Fishbein and Ajzen's theory of reasoned action, which views behavior as being driven by intentions (Zimbardo & Leippe, 1991). A person has a belief that an action will result in certain outcomes, which the person regards favorably or unfavorably, and which leads to the formation of an attitude. The person also has a belief that significant others have opinions on whether or not this action should be performed, which results in the formation of a "subjective norm" (Zimbardo & Leippe, 1991, p. 190) regarding others' approval or disapproval of the action. The attitude and subjective norm determine the person's intention or plan of action. The end-result is that the action taken by the person is a result of either the person's attitude or the subjective norm, whichever is of greater individual importance.

Attitudes cannot be directly measured, but instead are inferred by actions and words (Henerson, Morris, & Fitz-Gibbon, 1987). In examining attitudes, the researcher needs to remember that the opinions being expressed may actually be directed toward objects other than those being studied (Greenwald, 1989). For example, an unfavorable attitude toward nursing care plans may be a result of the nurse having insufficient time to prepare these documents rather than an

actual dislike of the plan. In addition, behaviors may not accurately represent underlying attitudes (Henerson et al.). Although two nurses may use nursing care plans in their school practices, one nurse may do so because care plans are a job requirement, even though the nurse personally finds the plans to be of little relevance. The other nurse may develop care plans not only because they are a job requirement, but also because the nurse believes that the plans are of value. Therefore, when measuring an attitude, it is important to explore multiple indicators of attitudes, rather than just focusing on the object in question, so that there may be a greater likelihood of validity (Fishbein & Ajzen, 1975).

A heuristic research approach is appropriate when the researcher has personal experience with the attitudes and objects being studied. "Heuristic research is a design strategy that involves complete immersion of the investigator into the phenomenon of interest and self-reflection of the investigator's personal experiences" (DePoy & Gitlin, 1994, p. 139). The author's feelings, beliefs, and behaviors toward the focus of the study may be challenged or perhaps changed as a result of the research findings. Informants are regarded as "co-researchers" (Moustakas, 1990, p. 47) rather than subjects because they are respected for their expert, genuine testimony. Data are often gathered during informal or semi-structured interviews to encourage self-disclosure, openness, and trust. Questions are open-ended, focused, and asked of all informants. Dialogue is natural and, with the exception of the interview questions, free-flowing. The researcher may share personal experiences with the informants to encourage self-disclosure since the investigator is really an extension of the tool rather than an impartial facilitator. Interviews are conducted in relaxing, comforting environments (Moustakas).

Heuristic inquiry may be considered the "Zen" of research. The researcher becomes one with the object of study, rather than remaining an dispassionate outsider. Personal feelings are allowed to surface, and quiet contemplation is encouraged to deal with the emotions and to explore new feelings and beliefs which may be encountered during the study. This method of investigation is appropriate for this author who as a special education school nurse has experienced frustration trying to comply with nursing standards and who as a parent of a child with multiple disabilities has relied on the judgment of other school nurses. Thus, heuristic research recognizes the shared human experience within all of us and taps into it to understand the diverse meanings of life's experiences.

Review of the Literature

Record keeping and documentation in school nursing has evolved primarily in response to the health needs of school-age children. Prior to vaccinations, sanitation, and public health education, diseases such as tuberculosis, diphtheria, small pox, and measles were widespread among children. Serious illnesses in children were often intentionally ignored by employers who valued productivity more than child welfare. Even minor health problems, such as lice, caused children to miss months of school because most parents did not know how to treat these conditions (Rogers, 1937). Medical care often terminated with the diagnosis of illness by the school's "medical inspector" (Struthers, 1917, p. 109), frequently resulting in lifelong disability and aborted education.

Lina Rogers, America's first school nurse, was recruited in 1902 to combat the high absenteeism rate identified in a New York school

(Rogers, 1937). Guided by her experience as a visiting nurse, Rogers went into the homes, workplaces, and neighborhoods of the students. She taught families how to care for their sick children, reported abusive home and employment situations to authorities, and treated minor health problems at school. Exclusion from school became a rare occurrence.

Although many of the health forms were completed by the medical inspector, Rogers advised nurses working in schools to maintain a simple "card system of reports" (Struthers, 1917, p. 263) to record such data as the length of a student's absence from school and individual health problems and outcomes. Rogers felt that disease histories were irrelevant since they were neither helpful nor reliable sources of information.

In addition to documentation of student needs, health records provided the following information (Kelly & Bradshaw, 1918): (a) statistical data to support the need for governmental funding, (b) health problems to guide classroom health education and substitute nursing services, (c) suitability of students for employment, and (d) history of school nursing for the benefit of future generations. School nurses were encouraged to rate and record the severity of health problems, which would assist the nurses in conveying the urgency of health concerns to the parents (Wilkes, 1924) and in monitoring parental follow-through with treatment (Mercier, 1926). These simple health records were the relatives of the earliest form of nursing care plans, known as case studies, which were used by hospital physicians in the early 1900's to train student nurses on the pathophysiology and treatment of diseases (Hegedus, 1991). Case studies were soon used in nursing schools to teach nursing students to (a) assess, plan, implement, and evaluate nursing care in terms of

improving the patient's health, (b) recognize their teaching responsibility to the patient, (c) view nursing care from a preventive as well as restorative perspective, and (d) evaluate their own performances (Munson, 1930). Munson noted that case studies were sometimes given more importance as tools for teaching students than as tools for ensuring patient well-being.

In the 1930's, the student health records became more detailed, comprehensive, cumulative, and sophisticated. School nurses documented the results of serial physical examinations, emotional well-being, personal hygiene habits, immunization status, health histories, home visits, and parental communication for each child in an effort to " . . . have before us a more complete picture of the whole child" (Chayer, 1931, p. 75). Nurses were encouraged to use this information to plan the proper course of action for each student during outbreaks of communicable diseases. Developmental and family histories were also regarded as important components of the school records (Chayer, 1937). Since teachers also contributed to the overall health assessment of the student, health forms were modified to serve each student's needs as well as the teachers' attempts to evaluate their students (Chayer, 1931). Guidelines for increasing the usefulness of school records included the use of symbols in documentation, printed instructions on the completion of forms, and inclusion of psychological and social status ("School Health," 1934). As children moved between schools, very often their health records failed to go with them, and health problems went unrecognized and untreated by subsequent school nurses. School nurses were advised, therefore, to look for a health record for every new student and, in its absence, perform an immediate health screening (Chayer, 1937). As one component of a four-year study to

improve student health services in Astoria, New York, Nyswander (1942) identified the absence or failure to transfer medical records to be a cause for a lack of coordination between teachers and nurses in securing treatment for children's health problems.

Despite the advantages of health records, school nurses generally viewed documentation as a waste of time (Chayer, 1937). In the case of hospital nurses, unfavorable attitudes toward recording were thought to be due to the nurses' lack of awareness of the merits of record-keeping. First-hand experience in the use of charts and records in problem-solving was recommended as a way to change opinions (Derryberry, 1937).

As the focus of nursing changed from a medical to a nursing perspective in the late 1930's, a nursing curriculum on the planning and documentation of individualized, client-centered care was introduced (Henderson, 1973). The nursing shortage following World War II prompted the development of the nursing care plan as a tool for communicating patient health problems and goals, nursing interventions, and patient responses (Hegedus, 1991).

Confidentiality of health information and a systematic method of storing student records were among the concerns of the 1940's. Teachers were informed of health problems rather than of medical diagnoses, and professional ethics were emphasized to assure privacy for the students (American Association of School Administrators, 1948). The individualized nursing care plan format used in hospitals continued to expand. The care plan contained patient problems, nursing objectives, medications, nursing interventions, and patient preferences and anxieties (Leino, 1952). Revisions were made as the patient's condition changed, and the development of the plan was a nursing

team effort, although the patient was not directly involved. The nursing care plan was a " . . . basis for making judgments in emergencies and for evaluating nursing care" (Leino, p. 325), as well as a tool for promoting continuity of care and providing a record for future research. Mauksch and Mauksch (1950) recommended the use of care plans to assist nonmedical personnel in providing individualized care to patients in the community and acute care settings. However, the care plan was not among the various records and reports that school nurses of the 1950's and 1960's were expected to prepare (American School Health Association, 1957, 1967). School officials, and not necessarily the nurse, determined the type of health information that was recorded (Cree, 1952).

The overall content of school health records changed very little over the next 30 years with the exception that parental consent for exchange of information was introduced (Garber, 1963), emergency information was included (Joint Committee on Health Problems in Education, 1969), and storage of health records on computers was suggested (Schneeweiss & Locke, 1967). Concepts, such as nursing diagnosis, planning, and evaluation, were mentioned, but not emphasized, in the school nursing curriculum (Bryan, 1973). The nursing process was new to the nursing profession, and clarification of related terms and concepts was of paramount concern (Bloch, 1974). The nursing care plan continued to be utilized by nursing educators to evaluate not only the student's progress but also the nursing school's curriculum (Randall & Tacke, 1961). An informal study of nursing administrators and educators in four New York Hospitals revealed that nursing care plans were often based on physician's orders rather than independent nursing activities and usually

omitted drug therapies, rehabilitative, patient education, and emotional needs (Kelly, 1966).

The value of nursing care plans has been debated for many years. Palisin (1971) argued that (a) nurses did not have the time to revise care plans constantly to reflect the patient's frequently changing needs and preferences as well as to communicate verbally this information to other nurses, (b) nurses sometimes relied too much on the care plan rather than seeking validation from the patient, and (c) nurses did not necessarily rely on the care plan as a source of accurate information. "Nursing care plans may have some value with selected patients . . . , but proliferation of such a tool not only complicates communication, but interferes with individualized care" (Palisin, p. 66). Furthermore, following a review of 235 randomly selected nursing care plans from six hospitals in the San Francisco Bay area, Ciuca (1972) concluded that nursing care plans did not view the patient holistically and were used primarily to communicate patients' needs among the nursing staff, but not to assess, diagnose, or enhance multidisciplinary team functioning. Ciuca saw the need to further explore the use of the care plan, explaining that it " . . . cannot be classified as a tool for delivery of patient care since it is not well utilized in practice" (p. 710). However, Harris (1970), a nurse educator, changed her unfavorable attitude toward nursing care plans when she was hospitalized and saw the need for a written plan of care for patients who were reluctant to ask for help, were unable to communicate, or were mentally incapable of recognizing their own needs. Harris' observations closely parallel the dependent nature of children, especially those with disabilities, who rely on others to anticipate and meet their needs.

In her book, School Nursing: A Framework for Practice, Wold (1981) explained the importance of maintaining detailed pupil health records and recommended the use of nursing care plans developed in collaboration with the client. NASN (1985b) recognized that increasing numbers of children with complex health problems were requiring medical intervention at school and included the development and implementation of health plans and protocols as a function of school nursing.

To determine the extent to which states had written guidelines for eight common nursing procedures performed at school (e.g., medication administration, seizure management, tube feeding), a national survey of 50 state departments of public health and education revealed that 13 (26%) states had no written plans, 6 (12%) had written guidelines for all eight procedures, and the remainder (74%) had some written guidelines (Wood, Walker, & Gardner, 1986). It was not until recently that individualized school health care plans which addressed a multitude of childhood health problems and disabilities were developed, standardized, and made available to school nurses (Haas, 1993).

ANA (1983) recognized the care plan as a crucial element in the Standards of School Nursing Practice and as a means of providing school personnel with the knowledge to meet the individualized health needs of students. School nursing literature also advocated the use of care plans in the educational setting (Proctor et al., 1993). Dunn (1984) described the steps in the development of a nursing care plan for a handicapped student attending school, adding that the nursing care plan illustrated the important role of the school nurse and the nursing process. However, few studies have examined

the use of the formal nursing care plan in the school setting. More often, the school nursing literature has contained anecdotal descriptions of modified versions of care plans that address health problems rather than nursing diagnoses and has focused on classroom-related student health needs rather than nursing interventions (Harbeck, 1990; Palfrey et al., 1992).

Despite the recognition of care plans as valuable tools and their endorsement by ANA, there is a paucity of research on the attitudes of nurses on the use of care plans. In a summary of the only recent study on the attitudes of 60 registered hospital nurses toward care plans, Hildmen and Ferguson (1992) reported that nurses with 1 year or less employment viewed the care plan more favorably than nurses with 10 or more years of employment, irrespective of their educational background. The utility of the nursing care plan, however, was assessed in that study relative to the nursing process in the hospital setting. It is not clear if this comparative approach is a fair evaluation of nursing care plans in other settings in which the nursing process is not as well established as it is in hospitals. Indeed, Hildmen and Ferguson pointed to the need for further research to validate their findings in other populations and settings. Brider (1991) pointed out that hospital nurses who regarded the nursing care plan as a time-consuming document of questionable value were relieved when the Joint Commission on Accreditation of Healthcare Organizations omitted the formal nursing care plan from its national standards.

The evolution of nursing care plans in the hospital setting and the evolution of documentation in the school setting share similarities: (a) Both mirror the nursing profession's commitment to serve an increasingly complex society, (b) both demonstrate a refocusing from a medical to a nursing

perspective, (c) both strive to reflect the professionalism and accountability of nursing, and (d) both are the subject of controversy and confusion among nurses. While nursing care plans have continued to mature at least in theory, documentation in school nursing has only recently been described in terms of written care plans.

It is this author's personal experience in the school setting that a plan for medically fragile students that describes the actions to be taken by the classroom staff in meeting the health and safety needs of these students may be more useful and relevant than a nursing care plan that details the actions to be taken by the nurse. To be successful, this approach requires an a priori understanding of attitudes toward care plans in general and an understanding of school nurses' attitudes toward care plans specifically. The methodology used to explore the usage of care plans in the special education setting is discussed in Chapter 3.

Chapter 3
METHODOLOGY
Research Design

The purpose of this study was to reveal the experiences, feelings, and opinions of special education school nurses toward nursing care plans. Since this topic had not been previously researched, an exploratory approach based on semi-structured interviews was used. This author had personal views on the role of the school nurse in health care planning. Therefore, the research was conducted from a heuristic perspective. However, efforts were made to obtain and represent accurately and fully the views of the participants.

Subjects and Sampling

Thirteen special education school nurses who were employed by two northern California county offices of education were recruited for this study. These school nurses served students with physical, developmental, and emotional disabilities that were too severe for district special education. The 13 school nurses comprised all the special education school nurses currently working in the two counties. Written permission to question the potential participants was obtained in May, 1994 from the directors of special education in both counties, with the understanding that participation in the study would be completely voluntary and that confidentiality would be maintained. Approval to conduct this research was obtained from the Human Subjects-Institutional Review Board at San Jose State University in July, 1994 (see Appendix A). Names and addresses of the school nurses were either already known (some nurses were professional acquaintances of this author) or were provided by a

potential participant who worked in one of the counties included in the study.

In August and September, 1994, the school nurses were contacted by telephone to explain the purpose of the study and to invite their participation. The school nurses were advised that their voluntary participation would remain confidential and that they could refuse to answer any question or withdraw from the study at any time. Professional acquaintances were assured that their relationship with this author would not be jeopardized if they declined to participate. All 13 school nurses expressed an interest in joining the study, although 2 school nurses stated that they were uncertain if they would be available during the time the interviews were scheduled. A consent form to participate in the research, which described the study and the associated potential risks and benefits, was either mailed or personally delivered to the potential participants (see Appendix B). Thirteen consent forms were distributed, and 12 were completed and returned. Duplicate copies of the consent form were either mailed or presented to the school nurses at the time of the interview. Ultimately, 2 school nurses were unable to participate in the study due to prior commitments, and 1 school nurse was ill on the day of the scheduled interview. The resulting convenience sample consisted of 10 special education school nurses, 3 from one county and 7 from another county.

Participants were given compensation for their participation in the form of a complimentary meal or a 1-lb box of candy at the time of the interview as an expression of gratitude for sharing their valuable time and expertise. All expenses for the study were paid by this researcher.

Data Collection Tools

An interview guide was developed by this author for the study. The guide

consisted of 18 open-ended questions that were intended to promote self-reflection of feelings, beliefs, practices, and opinions associated with health care planning and documentation (see Appendix C). Questions 1 through 10 paralleled the development of the traditional nursing care plan, but did not name the actual components in order to limit potential bias associated with leading questions and to reduce anxiety for those school nurses who might be unfamiliar with the terms. Question 11 was intended to reveal if the school nurses considered potential problems of their students. Question 12 was designed to discover the school nurses' criteria for deciding the types of health conditions that warranted a written plan. Following this question, the school nurses were told that they had actually been discussing the parts of a nursing care plan. The remaining questions concerned prior knowledge, use, feelings, and opinions regarding nursing care plans. Question 18 determined if the school nurses were aware of the standard recommending the use of care plans in the school setting as well as their opinion of it. Question 19 was developed and added to the guide after the first two interviews were conducted. This question asked the school nurses to describe what they visualized as the ideal format for meeting their students' health needs, given sufficient time at school. Probes were used to delve into the meaning of personal experiences and behaviors and to elicit anecdotes. Examples of common health problems, such as seizures, were offered as needed to clarify questions. The interview guide provided a focus for the interviews, supplied a format for subsequent data analysis, and gave surety that all school nurses had been asked the same questions.

The purpose of the interview guide was to provide focus for the interview

and to encourage free and uncensored expression. Questions were added or modified as new insights emerged during the interviewing process. For example, one school nurse stated that she and her colleagues used a standardized health-intake form. This information had not been previously disclosed when the school nurses were asked how they learned about health problems. Probes were then added to the remaining interviews in order to determine if this form was being used by the other school nurses. The school nurses were truly collaborators in this study since they not only shared a wealth of information, but, as the interviewing process continued, they also refined the scope of the investigation.

The interview guide was reviewed for content validity by a nurse researcher who was an authority in research methods, and it was subsequently revised. Demographic data on the school nurses, such as age and years of experience in special education school nursing were verbally obtained at the conclusion of each interview.

Samples of written plans that were developed and being used by the school nurses were requested on the consent form. If available, they were presented and discussed during the interview, or they were mailed to this researcher after the interview. All identifying student information was removed by the school nurses prior to the interview so that the anonymity of the students was maintained. The samples demonstrated what the school nurses considered to be useful written plans and enhanced the analysis of data.

Setting

Interviews were individually held on single occasions at the homes or workplaces of the school nurses, at mutually agreed-upon times during August

and October, 1994. Although it was intended that the interviews would occur outside of work to reduce interruptions, some of the school nurses were limited in time and could only be interviewed at their place of employment. One interview began in a restaurant during lunch, but had to be rescheduled to the school nurse's home due to distractions. The other interviews were conducted with only minor interruptions.

Data Collection

The interviews were conducted by this researcher and lasted from approximately 30 minutes to 1 hour, with an average length of 45 minutes. Interviews were audio-taped, with the school nurses' prior consent. As salient points were made during the first two interviews, brief notes were taken, but this practice was discontinued to promote the spontaneity of the communication. All school nurses stated that they had developed a written plan of action to address a student's health need in the classroom. Eight of the 10 school nurses provided samples of their written plans. One of these school nurses submitted the outline of a standardized plan (it did not contain individualized student information). This school nurse, as well as another school nurse who did not submit a plan, read portions of their completed plans during the interviews, which were captured on tape. All school nurses were asked the same questions from the interview guide. One question was added and several others were modified during data collection. The school nurses were later contacted by telephone for their responses to these revisions and for clarification of the interview notes. Probes were tailored to the discussion at-hand. The interviews were otherwise free-flowing and spontaneous so that conversation would be open and anxiety would be reduced. An inherent risk of

interviews is that the subjects tell the interviewer what they think the interviewer wants to hear rather than what the questions seek to uncover. In an attempt to minimize this potential bias, this author's feelings on documentation and health care planning were not disclosed before or during the interviews, although self-disclosure is widely used in heuristic research. In addition, the school nurses were asked at the beginning of the interviews to try to forget that this researcher was a school nurse so that their responses would be as complete and detailed as possible and so that they would not feel as if they were being judged. The school nurses became the teachers, and this researcher became the student. The qualitative data collection and analysis processes were concurrent and cumulative and became more refined with each subsequent interview.

To protect confidentiality, the school nurses were assigned identification numbers which were used on all data collection materials, including tape recordings. The audio tapes were transcribed in their entire question-and-answer format by this researcher and later erased.

Analysis Procedures

Transcriptions of the tapes were printed on 10 different colors of computer paper to identify and keep each school nurse's responses separate from one another. Answers to each interview question were cut and affixed to bulletin boards to facilitate data analysis. Responses were often lengthy and occasionally contained extemporaneous comments. Each answer was read for content and relevance and then contrasted to the other responses. Notations were made on the margins of the transcripts to summarize content, such as, "no nursing diagnosis," and to highlight responses that applied to areas to be considered later in the analysis.

As the data analysis progressed, it became apparent that the components of the nursing care plan corresponded to the steps of the nursing process. Therefore, Standard 2 of NASN's Standards of School Nursing Practice was used as a framework for the analysis of interview questions 1 through 12. This standard describes the steps of the nursing process, including the development of a written plan, and emphasizes documentation of every phase. These steps are as follows (Proctor et al., p. 24):

- A. Assess: the collection and documentation of data/information about or from students, families, individuals, health care providers, organizations, or communities in a systematic, continuous manner, using appropriate techniques.
- B. Diagnose: the analysis of the assessment data to arrive at (a) conclusion(s) which can be validated by others, is (are) documented, and facilitate(s) the development of outcomes and a plan of care.
- C. Identify Outcomes: the specification of measurable, appropriate, mutually formulated, attainable, and timely goals which are derived from the diagnosi(e)s [sic], are documented, and provide for continuity of care.
- D. Plan: the prescription of interventions designed to attain outcomes unique to the client which provide for continuity of care, are documented, and are conjointly created, when appropriate.
- E. Implement: the execution of the interventions prescribed within the plan of care in a safe, appropriate manner. Interventions are always documented.
- F. Evaluate: the systematic and ongoing appraisal of client responses to interventions and to the effectiveness of interventions in relation to

outcomes. Evaluative data are documented and used to revise assessments, diagnoses, outcomes, plans, and interventions.

Trends and patterns emerged as the degree of each school nurse's consistency with the standard was evaluated. As each step was analyzed, the attitudes and behaviors of the school nurses in care planning and documentation were grouped and categorized. The remaining interview questions and responses were similarly compared, grouped, and categorized to uncover the school nurses' understanding of health care planning and nursing standards. Demographic data were also categorized and presented as frequencies and percentages. The findings are presented in Chapter 4.

Chapter 4

ANALYSIS AND INTERPRETATION OF DATA

This chapter will present the findings of the study, along with the demographic characteristics of the school nurses. The purpose of the study was to uncover the attitudes of special education school nurses toward nursing care plans, using an interview guide. During the interview process, it became clear that the traditional nursing care plan was not being used. Documentation styles were diverse and, in some cases, appeared to be the end product of the nursing process rather than a road map of nursing actions.

Basically, two patterns of written nursing plans emerged. The school nurses in one county wrote their plans of care on Individualized Education Plans (IEP), a document used in special education to describe a student's present status, needs, goals, objectives, interventions, and required services. The school nurses in the other county wrote their plans of care on a variety of instruments that they had developed either individually or collectively. This group also used IEP's, but usually for students requiring specialized physical health care (SPHC) procedures. SPHC is a medical procedure, such as gastrostomy tube feeding or clean intermittent urinary catheterization, that is ordered by a physician and performed by the classroom staff under the supervision of the school nurse. The findings of this study include not only the attitudes of the school nurses toward nursing care plans, but also the manner in which health care was planned and delivered by these school nurses in the special education school setting.

The first 12 interview questions were analyzed to determine the extent to

which the school nurses were complying with the basic steps of the nursing process as recommended by NASN (Proctor et al., 1993). Responses to the remaining interview questions, which explored personal opinions and experiences with documentation, were analyzed to help understand why the school nurses were using alternative methods to the nursing care plan. Quotations from the school nurses are presented to illustrate salient points and to provide examples. The results of the data are presented in the following order: (a) demographic characteristics of the school nurses, including frequencies and percentages; (b) responses to the first 12 interview questions as measured against NASN Standard 2: Nursing Process; and (c) responses to remaining interview questions concerning knowledge of nursing care plans, feelings toward ANA's recommendation for the use of care plans in school nursing, and suggestions for improvement of documentation.

Characteristics of the Sample

The sample for this study was comprised of 10 special education school nurses who were currently serving students with developmental and physical disabilities in two northern California counties. All school nurses were female and had diverse nursing backgrounds. While the total number of years each school nurse worked in other areas of nursing is provided, 8 of the school nurses had hospital nursing experience, and 2 of the school nurses had public health nursing experience. Three of the school nurses taught nursing or nursing-related courses at the college level. One school nurse was certified as a pediatric nurse practitioner in another state. The profile of the school nurses is presented in Table 1.

Table 1

Demographic Characteristics of the Sample (N=10)

Group	<u>n</u>	%
<u>Age in years</u>		
40 - 49	4	40
50 - 59	5	50
60 - 69	<u>1</u>	<u>10</u>
Total	10	100
<u>Year BSN obtained</u>		
1950 - 59	2	20
1960 - 69	4	40
1970 - 79	2	20
1980 - 89	<u>2</u>	<u>20</u>
Total	10	100
<u>Highest educational degree obtained</u>		
Bachelor of Science	4	40
Master of Science	1	10
Master of Arts	2	20
Masters in progress in nursing or related field	<u>3</u>	<u>30</u>
Total	10	100
<u>Years experience in special education nursing</u>		
1 - 4	1	10
5 - 9	5	50
10 - 14	0	0
15 - 19	<u>4</u>	<u>40</u>
Total	10	100

(table continues)

Group	<u>n</u>	%
<u>Years experience in regular school nursing</u>		
None	4	40
1 - 4	4	40
5 - 9	0	0
10 - 14	<u>2</u>	<u>20</u>
Total	10	100
<u>Years experience outside school nursing</u>		
1 - 4	4	40
5 - 9	3	30
10 - 14	1	10
15 - 19	<u>2</u>	<u>20</u>
Total	10	100

Analysis of Responses Related to the Nursing Process

Standard 2 of NASN's Standards of School Nursing Practice, which details the steps of the nursing process, was used as a framework for the analysis and grouping of data generated by questions 1 through 12. Each step of the nursing process is separately identified, followed by the related interview question or questions. Categories evolving from responses are then presented, followed by explanations and examples. An author-created model of the analysis of the first 12 questions is presented in Figure 1. This model depicts the nursing process as a series of steps that are interrelated and continuous and shows the categories (e.g., written reports) that emerge from each step.

Figure 1. Application of the Nursing Process to Special Education Nursing
Assess

The school nurses were asked how they first became aware of students' health needs (question 1). Three types of data by which the school nurses learned of health problems were written reports, verbal reports, and direct assessment.

Written Reports

This category included all printed data that were not authored by these school nurses, such as medical test results, other school nurses' notes, psychologist reports, health and developmental histories, and immunization records. Sources included physicians and other health care providers and developmental agencies, school district personnel, student cumulative records, and student emergency forms which were completed by the parents.

Student information was sometimes provided on a standardized form. Two school nurses in one county utilized a health questionnaire that parents were required to complete prior to the students' entry into school. The form, which was developed by these same school nurses, had to be reviewed and approved by the Special Education Local Plan Area (SELPA) personnel prior to its use. The SELPA is comprised of school districts and the local county office of education and provides students with educational resources that might otherwise be difficult to obtain if each were operating independently (California Department of Education, 1992). In another county, one school nurse reported that a health questionnaire completed by parents of incoming early education students was very helpful. However, since this document was not mandatory for school entry, only 25% of the parents filled out the form.

Verbal Reports

Data in this category included information that was verbally expressed by telephone or in person. Sources included the students (when appropriate), parents, classroom staff, psychologists, physicians, school district personnel, social workers, principals, school bus drivers, and other school nurses. In response to verbal reports, some school nurses documented their findings in the nurse's notes of the student's cumulative file or requested the information in writing from the source.

Direct Assessment

This category included the gathering of information by "hands-on" nursing assessment of the students. All school nurses stated that they examined students when notified of health concerns by the classroom or support staff. Only one school nurse stated that she routinely performed weekly

assessments on all her students, often discovering health problems.

All school nurses were dependent on outside sources to either alert them to health concerns or to provide them with initial health information on incoming students. The school nurses were also dependent on the parents and the classroom staff to bring concerns to their attention regarding students already in school. This information came in both verbal and written formats. The school nurses assumed an active role once they became aware of health problems. They sought clarification of health needs from the parent, whom they regarded as the primary source of health information, and several school nurses included home visits as part of their data collection.

All school nurses mentioned situations in which students started school with no health information and no forewarning. "Sometimes a child arrives on our doorstep, and we know absolutely nothing, and that's when I go into the classroom or the teacher comes running to me and says, 'Help!' " This dilemma was substantially reduced in one county by the compulsory completion of the health questionnaire developed by school nurses for incoming students. Other factors which enhanced the school nurses' abilities to gather health information and perform assessments included a stable school population, district and administrative support, reliability of sources, and willingness of parents to share information.

Diagnose

The school nurses were asked how they determined what needed to be done at school to meet a student's health needs (question 2). Once health needs were identified, there was diversity among the school nurses as to the type of terminology used to describe health concerns. Not every school nurse

was familiar with nursing diagnoses, and a wide variation existed as to how health problems were described. Three categories of problem identification that emerged were nursing diagnosis, medical diagnosis, and description of need.

Nursing Diagnosis

Proctor et al. (1993) recommended that school nursing diagnoses contain two or three of the following parts: (a) diagnostic label, (b) contributing factors, and (c) signs and symptoms, emphasizing that, ". . . a well-thought-out nursing diagnosis describes a situation as a nursing problem and delineates what you do as a nurse" (p. 25). In addition, they stated that, "In the school setting, diagnoses may be nursing or educational, or the recognition and incorporation of medical diagnoses" (Proctor et al., p. 24). All sample care plans contained at least one of these parts, although not as a single statement. Rather, components of the nursing diagnosis were included in various sections of the plans.

One school nurse stated that the special education nurses in her county developed and standardized a series of nursing diagnoses and interventions for common health concerns, adding that, "This has never matched the nursing process." Upon review of the sample plans submitted by two school nurses from this county, the plans were found to contain medical diagnoses, such as "mucopolysaccharidosis type III, a progressive disease which has led to paraplegia," and related needs, such as ". . . needs the care of an assistant to . . . guard against skin breakdown." The school nurse also provided a sample of an "Individualized Healthcare Plan" developed for a student with asthma that contained nursing diagnoses, such as "Potential for alteration in respiratory function." The school nurse based her plan on Haas' (1993) resource book of

school health care plans, a book which was highly recommended by Proctor et al. (1993) for school nurses. The school nurse explained that she had only recently developed this plan and had not evaluated its usefulness to her school setting, but added, "I have really appreciated the book This is the first time I have found any clear direction for the nursing part of school health."

Four school nurses stated that nursing diagnoses were not useful in the school setting since the care plans were used by nonmedical staff. As one school nurse explained, "I think that if I put nursing things on the school health care plan it would not necessarily be appropriate for the staff because they are not nurses." Nursing diagnoses were regarded as being wordy and confusing. One school nurse commented, "You need to be able to write something that everyone can understand, and I don't believe that nursing diagnoses facilitate that kind of communication. I think they just get in the way."

Medical Diagnosis

This terminology named the disorder, but did not include contributing factors or signs and symptoms. Medical diagnoses, such as herpes, hydrocephalus, and cerebral palsy, appeared in all sample plans, most often in a description of the student's health status at the beginning of the care plan.

Description of Need

This category identified special care requirements, such as "Positioning," and health and safety concerns, such as "Difficulty in handling respiratory secretions." These descriptions contained the greatest diversity in construction and terminology (e.g., "Has vomited following GT [sic] feeding if he has a cough"). The description of need usually preceded the interventions in the care plan (e.g., "Feeding: . . . will not receive anything by mouth at school").

There was great variation in how health concerns were identified and described. Of the 7 sample care plans submitted, 6 plans contained at least two of the recommended components: medical diagnoses and, most often, signs and symptoms, although as separate considerations rather than as consolidated statements. One sample care plan illustrated this format: ". . . frequent outbreaks of herpes lesions [diagnostic label] . . . The lesions are usually on his left hand and appear as small blisters. These lesions are contagious [signs and symptoms] . . . " The remaining plan contained medical diagnoses and descriptions of needs. Six of the sample plans also contained descriptions of needs.

Once the school nurses identified and validated health problems, they determined what interventions and staff training were needed. The school nurses also determined if environmental changes were necessary in the school and if written plans of care were needed. All the school nurses stated that they confirmed their findings and discussed their concerns with other sources, primarily the parents. In addition, the school nurses conferred with physicians when necessary and consulted with other school nurses in complicated or unusual situations. One school nurse referred to medical and nursing textbooks as well.

Identify Outcomes

The school nurses were asked what information was contained in the plans they wrote if, in fact, they wrote plans (questions 3 and 4). Two categories of outcomes which emerged were explicit and implicit.

Explicit

This category consisted of goals that were written. The school nurses

who worked in the same county stated that they routinely wrote goals as well as objectives for their students who required nursing services. These goals and objectives appeared on the IEP's, were written from the students' perspectives, and were based on the health problems identified in the nursing assessment, which also appeared on the IEP's. Objectives showed who was responsible for performing the health promotion action and how the objectives would be measured. For example, "[Student] will cooperate 100% of the time when he is catheterized." In addition, objectives were identified as new or continuing. Two school nurses from a different county stated that they would only develop goals and objectives if they were writing educational objectives for the students on the IEP's, for example, if a student were learning self-catheterization.

Implicit

This category contained goals that were implied rather than written. Some school nurses felt that goals and objectives were inferred by the actions taken to meet a particular health need. For example, by providing the classroom staff with written instructions on seizure management, the school nurse's goal was to prevent injury to the student during a seizure. As one school nurse explained, "That's [the protection of student] what I expect when I write the protocol." While the explicit goals on the IEP's complied with NASN's recommendations for identifying measurable, documented outcomes, the implicit goals did not.

Plan

The school nurses were asked if they developed a plan of action for meeting a student's health need, what it looked like, what information it contained, who provided input into the development of the plan, if they planned

for unexpected health problems, for which students they developed plans, and if a sample of a plan would be available to this researcher (questions 3, 4, 5, 6, 11, and 12). Two categories of health care planning that emerged were written and verbal.

Written

This category included written plans, instructions, and procedures for meeting the health needs of students. Written plans were both standardized and nonstandardized.

Standardized plans are those which contained a predictable structure and content, such as IEP's and SPHC documents. The school nurses who used the IEP as a plan of care presented the most consistent format, in terms of content, that most closely reflected the components of the nursing process: nursing assessment, goals, interventions (written as behavioral objectives), assignment of school personnel to perform the interventions, and evaluation criteria. Concise nursing diagnoses were absent, although at least two components were usually present. One of the school nurses explained that her county school nurses were required to use the IEP form, explaining, "It [the IEP] has never really been compatible with the way nurses feel that this should be done. But this is the only form that is accepted by our SELPA, and so we've kind of adjusted our wording to fit their process." Lacking a model to follow, one school nurse explained, "We [the school nurses] got together and decided we had to standardize our forms and use the nursing diagnoses. There was nobody telling us [what to do]; there's just no information like that available." IEP's were developed for all students receiving nursing services and specified the amount of nursing time allocated to the student. The signatures of the

parent and participating staff on these forms verified that the proposed contents had been reviewed and approved. IEP's were generally not developed for students with controlled medical conditions, such as seizures.

When developing written procedures for students requiring SPHC's at school, the school nurses in both counties referred to Guidelines and Procedures for Meeting the Specialized Physical Health Care Needs of Pupils (California Dept. of Education, 1990), more commonly known as "The Green Book." This manual contains instructions for performing a variety of medically prescribed health care procedures at school as well as medical and parental consent forms, classroom staff training records, and procedural logs. The school nurses adopted the procedures and forms in the Green Book, modifying them to reflect the student's unique needs. The school nurses in one county had computerized SPHC procedures based on the Green Book available for their use. All school nurses obtained written authorization and approval from parents and physicians on SPHC procedural documents. Therefore, the school nurses had proof of documentation and validation of nursing actions and interventions, as recommended in Standard 2 and as required by law. The school nurses also developed IEP's for students requiring SPHC procedures, specifying by whom the procedures were to be performed.

Another type of standardized plan were preprinted instructions for such health and safety issues as the management of seizures and head injuries, Universal Precautions, and classroom emergency response procedures. These directives were often developed and adopted by the school nurses in a county for use by classroom staff. When compared to Standard 2, instructions provided the recommended documentation of interventions, but were not necessarily

developed in collaboration with the client, were generic rather than individualized, and did not have explicit goals or evaluation criteria.

Several of the school nurses in one county worked together to develop a format called the Individualized School Health Care Plan. Upon review of their sample documents, similarities in structure and content among the plans were evident, including a nursing assessment, past and present health problems and related needs, classroom interventions, and delineation of parental and school responsibilities to meet these health needs. The nurses stated that these plans were always developed with others involved with the student's care, such as the parents, classroom staff, physicians, and other nurses. Dissimilarities in the plan included whether or not they were signed and by whom, and the inclusion of a daily schedule delineating the times at which student's health needs were met. As one of these school nurses stated, "Sometimes the format [of the plan] is different depending on the needs of the child." These plans contained the requisite components of a plan according to Standard 2.

Nonstandardized plans were those that did not have a predictable structure and content. Two sample care plans demonstrated great variation in the amount of information contained. One plan, written for a student with attention deficit disorder, was a single page containing a brief description of the student's health problem and instructions for the administration of medication for hyperactivity. The other plan, written for a student with multiple health problems, was six pages long, identified health care providers, listed equipment and transportation needs, and included immunization records and behavioral indicators. The plans reflected the level of complexity of health care needs and the nursing judgment toward documentation.

Another example of a nonstandardized plan was a nursing summary developed by one school nurse, which contained the medical diagnoses, health history, nursing assessment and present level of functioning, health care procedures to be performed at school, and names of health care providers for an incoming student, as well as preparatory measures to be taken by the school and family prior to school entry. The school nurse explained that this nonstandardized document was not part of the IEP and that, "It's pretty much kind of our own evaluation and our own list of what needs to happen."

Individualized protocols were another type of nonstandardized plan mentioned by some of the school nurses in one county to meet the health needs not addressed by SPHC procedures or standardized instructions. Those school nurses who prepared protocols described them as steps for meeting a unique health need of a student, such as atypical seizures. Here again, there was no general "rule of thumb" as to which conditions warranted a protocol, the content or format of the protocol, or signatures obtained. The criteria were a result of nursing judgment. Protocols were sometimes written after a problem had occurred. At least one school nurse included protocols on the IEP. Most often, it was a separate document. No samples of protocols were available for analysis.

Nurses' notes in the student's cumulative file were another type of nonstandardized plan. One school nurse routinely used these notes for approximately half of her students to provide an " . . . ongoing account of observations, data gathering, assessment, plan of action, and follow-up." Since these notes are not available to classroom aides, the school nurse explained that she would also do a care plan for the classroom if needed.

Verbal

This category consisted of consultation with classroom staff on student health concerns that did not, based on nursing judgment, necessarily warrant a written plan of care. As one school nurse explained, "I'm all for keeping things brief, concise, with as little paperwork as possible." This method included reviewing the health problems that had been identified by the parents on student emergency forms and health questionnaires and discussing appropriate interventions for actual and potential problems. At least four of the school nurses relied on the teachers to relay this information to the classroom aides and substitute teachers. Verbal plans were not recommended in Standard 2.

In planning for unexpected health problems, all school nurses instructed the staff on such topics as first aid, Universal Precautions, signs and symptoms of illness, disaster preparedness, Heimlich maneuver, and responding to emergencies in the nurse's absence. One school nurse added, "I wear a beeper and tell the staff to call me." Another school nurse stated that she tried to anticipate and include problems on care plans. Most training of the staff on individual, potential student problems was done verbally, sometimes by presenting the staff with hypothetical situations and reviewing the appropriate interventions. Plans for potential or unexpected problems were not always documented.

There were no clear directions to guide the school nurse's decision on whether a plan was written or verbal. As one school nurse explained, "If it's not an SPHC, it kind of depends on the type of student, the type of need, [and] the classroom staff. Sometimes it's just consulting with the classroom staff and

making them aware of what the situation is." Students for whom care plans were most frequently developed included those who (a) required direct or indirect nursing services, (b) had multiple health needs that could not be addressed by standardized guidelines, (c) had SPHC procedures, or (d) had health needs or interventions that posed a litigious risk for the nurse. School nurses also acknowledged that plans were sometimes developed in response to the needs of the classroom staff or in response to a parental request. One school nurse explained why she created a plan of care for a student with a controlled seizure disorder, "The mother . . . wanted something very specific written about how her [the student's] seizures were suppose to be handled." The school nurse explained that common health problems such as controlled seizure disorders are typically addressed by standardized guidelines, not individual care plans. While not all school nurses were asked the number of students for whom they had created care plans, several school nurses reported the following ratios of care plans developed per total population served: 3:150, 4:60, 18:132, and 27:160. Although some of the school nurses would have liked to include more students, as one school nurse stated, "Time just doesn't permit it."

Implement

The school nurses were asked where the care plans were used and by whom they were used (question 7). Two categories emerged here: the school nurse and the classroom staff. Almost all plans were used in the classroom by the teachers and aides who were responsible for performing the health care interventions. The school nurses supervised the staff and performed the care plan interventions only while training the staff, in the staff's absence, and in

emergencies. "I'm really more of a teacher and a consultant," explained one school nurse. The school nurses remained accountable for the actions of the aides since, as one school nurse explained, "They're [the classroom staff] operating under our licenses." Copies of the care plans and SPHC instructions were kept in the students' files. Parents often received a copy of the plan, particularly if it was part of the IEP. The interventions were documented in the written plans, as recommended by NASN.

Evaluate

The school nurses were asked how they knew if their plans were effective, what action they took if the plans were ineffective, and if they ever reviewed their plans (questions 8, 9, and 10). Two categories of evaluation that emerged were direct and indirect evaluation procedures.

Direct

This category of evaluation was used when the school nurse assumed responsibility for seeing that the plan was working. For example, the school nurses usually performed monthly reviews of the staff performing the SPHC procedures and documented their findings. For other procedures, many of the school nurses observed the staff in the classroom on an ongoing basis.

Indirect

This category of evaluation was used when the school nurse circuitously monitored the care plans for problems. Nearly half of the school nurses relied on feed-back from the staff to alert them to problems. One school nurse stated, "If nothing adverse happens to the student, you know the plan is working."

When plans were deemed ineffective, the school nurses conferred with the classroom staff, parents, and physicians. The school nurses reviewed the

plans at least annually, most often in conjunction with the IEP. The plans were also reviewed as the student's health needs changed, such as when SPHC procedures were necessary. The IEP's contained sections for the inclusion of dates on which retesting (i.e., evaluation) would occur. However, these areas were not completed on the sample plans that were reviewed.

Regardless of whether direct or indirect evaluation methods were used, the school nurses monitored the appropriateness of interventions and used this information to modify the plans as needed and as recommended in Standard 2. Some school nurses took greater initiative in the evaluation process while others relied on the staff. What was unclear was the extent to which nursing actions were documented during this step.

Analysis of Responses Related to Nursing Care Plans

The school nurses were asked if they had ever received instructions on how to write care plans, and, if so, where and when (question 13). Six school nurses had never received instruction on how to write a nursing care plan either during their nursing education or from their present employer. Four school nurses had received instruction during their nursing education, and some school nurses had also received training during their employment in the hospital setting. Only one of the school nurses had received training during employment as a school nurse in another state. One school nurse recalled that upon completion of a one-day course on care plans, she was expected to be able to teach the subject. She presented a workshop to school nurses on the care plan and described her extreme frustration: "It was so overwhelming to [the school nurses] and me that nothing came of it. The amount of time it took to understand the concept and how it related to the school environment as well as

to actually write [a plan] . . . It was just almost rebellion." One school nurse shared her impression of a California School Nurses Organization (CSNO) workshop on nursing care plans: "The attendance was tremendous It was the biggest flop you could ever imagine because the person teaching it didn't understand what she was doing. People were very discouraged."

The school nurses were asked if they had ever used nursing care plans and, if so, where and how long ago (question 14). Three school nurses had never used nursing care plans. The other 7 school nurses had used them primarily in hospitals, on an average of at least 12 years ago. One school nurse had used care plans in a prior school setting outside California. None of the school nurses were using traditional nursing care plans in their present employment.

The school nurses were asked to discuss their feelings about nursing care plans and if they thought nursing care plans would be useful for their students (questions 15 and 16). Overwhelmingly, the school nurses felt that nursing care plans were not well-suited for school nursing because they were time-consuming to develop and they would require modification so that the classroom staff could understand and implement them. As one school nurse explained, "I would still have to translate it in order to make it useful to the people working in the classroom who need it." Favorable comments about nursing care plans included the promotion of continuity of care among nurses and clarity and organization of content. Less favorable comments were as follows:

1. "Remember that we are a school. We don't do nursing care plans, we do health care plans for the classroom."

2. "I'm not training the staff to do nursing care. I'm training the staff to perform a technique and be able to recognize a deviation and call me."
3. "When I worked in a hospital, they [my feelings] were pretty negative because it [the care plan] was something that nobody paid any attention to except for when somebody was going to do one of those [accreditation] inspections."
4. "Sounds like a lot of work."
5. "I had trouble transferring the ones that I had followed years ago into something that was more usable now."

The school nurses were asked what made their present form of documentation more useful to their practice than care plans (question 17). The school nurses felt that their plans were less lengthy and less technical than nursing care plans, making it easier for the classroom staff to understand and to implement. "Nursing care plans tend to be lengthy and involved. A one page protocol is a very concise way that people can look at a piece of paper, go to an area, pick out the information they want, and act on it."

The school nurses were asked if they were aware of the ANA's Standard of School Nursing Practice that recommended the use of care plans and to share their feelings about this standard (question 18). Five school nurses were aware of this standard, and 5 school nurses were not. The school nurses almost unanimously felt that this recommendation was impractical and voiced definite opinions as follows:

1. "They [ANA] haven't come to an agreement among themselves. I think ANA forgets that school nurses are not hospital nurses, and it's a real big difference."

2. "If they are saying that this is what has to be done, then they [ANA] had better get out and train us in our environment."
3. "I certainly respect what they propose. It sounds wonderful. Just where do I find the time?"
4. "It's a waste of my time. If it served a purpose, I would do it. I just don't think it does."
5. "I just finished the [school nurse] credentialing program 3 years ago, and that [the standard] was never discussed. I think ANA does have the responsibility to set standards, but I also think that the standards should have been adopted by CSNO. I've been a member of CSNO for years . . . and [haven't seen reference to that standard] in the literature or inservices."

The school nurses were asked to describe the ideal format for care plans. Four school nurses had no opinion. One school nurse mentioned the current plan she was using, which was a health care plan that contained a brief description of the student and a list of health needs and classroom interventions. Another school nurse suggested a computerized format that contained not only the results of the mandated screening, but also included the IEP and nursing notes. Other recommendations included SOAP charting, and a brief, standardized format. Only one school nurse envisioned a plan with nursing actions delineated so that, "We'd be in compliance with ANA."

The purpose of this study was to examine the attitudes of school nurses in special education toward care plans. In this chapter, the demographic characteristics of the sample were presented. The findings of the study, which were obtained from an interview guide, were discussed. Conclusions and recommendations are presented in Chapter 5.

Chapter 5

CONCLUSION AND RECOMMENDATIONS

This chapter begins with a summary of the study, then discusses conclusions based on the findings as well as limitations of the study. The chapter concludes with recommendations for future research and school nursing practice.

Summary of the Study

The research questions for this study were as follows:

1. What are the school nurses' experiences with documentation?
2. What are the attitudes of school nurses in special education toward care plans and their use in school?
3. What are the reasons given by school nurses for using and not using nursing care plans in the special education setting?

An author-created interview guide was used to collect responses from ten special education school nurses. Data were analyzed for recurrent themes and grouped into categories, using NASN's Standard 2 as a framework for comparison. School nurses generally held unfavorable attitudes toward the use of nursing care plans in the special education setting. The consensus of the school nurses was that care plans needed to be written in a language and style that could be easily understood and implemented by the classroom staff. Furthermore, the school nurses utilized a variety of methods and documents to plan and deliver health care to their students.

Conclusions

This study was the first time that the usefulness of the nursing care plan

to special education school nurses had been explored. This topic has not been investigated in the regular school setting. Therefore, there were no studies with which results could be compared. Nonetheless, some conclusions could be drawn:

1. School nurses were utilizing the steps of the nursing process to varying degrees, although not all the steps were consistently documented.
2. School nurses were often in a dependent role during data collection. They relied on outside sources to provide them with health information. Their access to health information was contingent on parental consent and determined by bureaucratic preferences and policies.
3. The components of a nursing diagnosis were contained in most plans, but they were dispersed throughout the plans rather than written as solitary statements. This disparity may have been related to a lack of understanding on how a nursing diagnosis was constructed or to an attempt to describe the health problems in easily understood terms.
4. Outcomes were specified on the IEP in accordance with district policy, but were not concretely developed in other plans that were examined.
5. The planning step was where the greatest diversity and originality in documentation were demonstrated, making the analysis and comparison of documents difficult at times. The traditional nursing care plan was not being used. Plans written on the IEP's documented more steps of the nursing process than other written formats and appeared to reduce the need for additional written classroom instructions. Other plans, such as the Individualized School Healthcare Plans, were written in nontechnical language and in a simple style that could be easily understood by the classroom staff. Standardized

guidelines conserved nursing time and helped ensure that the classroom staff members responded to emergencies in a similar, safe manner.

6. The classroom staff not only implemented the plan, but was sometimes expected to provide feedback on its efficacy to the school nurse.

The nonuse of the nursing care plans may be related to several factors. Six of the school nurses received their BSN's prior to 1970 when care plans did not figure as prominently in the nursing curriculum as they did a decade later. None of the school nurses had received instructions on care plan development from their present employers. As one school nurse explained, "This is the only place [that I've worked] that has never said a word about nursing care plans because they really don't know what a nursing care plan is." One of the school nurses had received training on care plans during her employment as a regular education school nurse in another state. What is unclear is whether this training was a result of more rigorous adherence to school nursing standards in that particular state or was a result of the employer's professional expectations. Even CSNO was apparently not providing adequate training on care plans.

All school nurses had worked in other areas of nursing, and several of them had received training in care plan development in the hospital setting. But the school nurses viewed themselves as being different from hospital nurses. They were not practicing within the structure and protection of a medical environment. Their scope of practice was defined and often limited not only by the Nurse Practice Act, but also by educational and governmental edicts. They were accountable for the actions of nonmedical staff. Through repeated trial and error, they had unsuccessfully tried to adapt the hospital care plan to the nursing environment. Their conclusion was that the nursing care plan was not a

realistic or practical tool for ensuring safe and effective care of special education students. It was too convoluted, too technical, and too lengthy for application by nonmedical classroom staff. NASN and CSNO need to understand the problems facing school nurses and the impact that nursing standards have on nursing practice and attitudes. Furthermore, they need to work with their members to find realistic and practical solutions and ensure that this information reaches ANA and all school nurses.

Limitations

This study was based on a convenience sample of special education school nurses in two northern California counties. Therefore, it is impossible to generalize the findings to other special education school nurses. This researcher's opinion of nursing care plans may have been known to some of the school nurses who were professional acquaintances of this researcher, and this knowledge may have biased some responses. The neutrality and informality of the interview questions were intended to reduce this bias. This researcher's attempt to remain as objective and impartial during the interview process and data analysis was also intended to reduce the impact of this bias. Although this researcher kept the school nurses' identities confidential, some of the school nurses had spoken to each other about the interview, which might have affected their responses. Misinterpretation of the audio tapes during transcription was another possible source of error. Although a microphone was used during the interviews, several comments were inaudible, and the school nurses were contacted for further clarification as needed. This follow-up posed another possible source of bias since now the school nurses had time to ponder and possibly change responses. Occasionally the school nurses would ask for

clarification of questions. For example, when asked if she planned for unexpected health problems, one school nurse asked, "What do you mean?" In these situations, further explanation and sometimes examples were given which might have influenced the responses.

Given the voluminous amount of data that were generated from the open-ended interview questions, there was always a possibility of error in the analysis, especially in establishing the categories. A review of the categories and transcripts by experts in the field of qualitative research might have reduced this potential source of error. The use of a questionnaire would have been more economical in terms of time and expense, but would not have captured the expansive richness of personal anecdotes and feelings that were expressed during the interview.

Recommendations for Future Research

Additional research is needed to assess the attitudes of other school nurses in regular education and special education, both statewide and nationally, toward nursing care plans and other forms of documentation. An examination of other school nurses' knowledge and opinions of nursing standards is also needed. Factors influencing nursing judgment regarding documentation of health care delivery in the school setting, such as the nurse-to-student ratio, delegation of responsibilities to nonmedical staff, and the prioritization of nursing responsibilities, need to be studied. Research to determine the actual number and types of plans being written will help assess the scope of the issue. Research is needed to understand the impact of governmental and educational mandates on school nursing documentation. The attitudes of members of local, state and national school nursing

organizations toward nursing care plans and nursing standards also need to be explored. It is of paramount importance that the findings from these studies are communicated to organizations such as ANA and NASN so that these organizations can more effectively respond to the needs of the school nurses.

Recommendations for School Nursing Practice

ANA's standards for school nursing practice are out of step with the times. School nurses are struggling in their effort to provide safe nursing care and comply with nursing standards. School nurses need to participate actively in professional nursing organizations, such as NASN and ANA, and let these organizations know what works and what does not work in the school setting. The organizations need to understand that care plans are read and implemented by nonmedical staff and parents and that care plans are only as useful and effective as they are easy to understand and follow.

School nurses need to collaborate in creating what is for them a realistic document, and then share this format with other school nurses. One way to promote this type of teamwork is through school nursing organizations, such as Bay-Net in Santa Clara County. This organization consists of special education and regular education school nurses who collaborate to share information and training on issues such as SPHC's and to find solutions to school nursing problems.

School nurse credentialing programs need to include school nursing standards in their curriculum. Nursing students may not be practicing school nurses and therefore would not necessarily have knowledge of or access to this information. Nursing students could develop and pilot versions of care plans during their practicums, sharing results with their preceptors and instructors.

Throughout the history of school nursing, two of the goals have been to meet the health needs of children while improving the quality of life, such as providing care to medically fragile children who would not otherwise be able to attend school. These goals have motivated school nurses to develop, test, utilize, modify, and discard countless forms of documentation and methods of record keeping. Today's school nurses are facing the same challenges and rely on professional organizations like CSNO and NASN to provide them with structure and guidance for the management of care for the growing population of medically fragile students. It is important that these organizations continue to support these goals by listening to the voices of school nurses who work in the field. This study represents a first attempt in that direction.

Heuristic research uncovers not only how life is experienced by others, but challenges the researcher to do an introspective investigation of feelings and beliefs. At the onset of the study, this researcher was convinced that a nursing care plan was appropriate for any nursing situation. But it soon became clear as the nurses shared their opinions and experiences that this notion was not realistic and that the time had arrived for school nursing standards of practice to come of age.

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APPENDIX A

Human Subjects-Institutional Review Board Approval

Office of the Academic Vice President • Associate Academic Vice President • Graduate Studies and Research
One Washington Square • San Jose, California 95192-0025 • 408/924-2480

TO: Margaret Fischer
231 Cypress Point Dr.
Mountain View, Ca 94043

FROM: Serena W. Stanford, Ph.D. *Serena W. Stanford*
AAVP, Graduate Studies and Research

DATE: July 1, 1994

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"The Attitudes of School Nurses in Special Education
Toward Nursing Care Plans"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research projects, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Serena Stanford immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that each subject needs to be fully informed and aware that their participation in your research projects is voluntary, and that he or she may withdraw from the project at anytime. Further, a subject's participation, refusal to participate or withdrawal will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted. If you have questions, please contact me at (408) 924-2480.

APPENDIX B
Consent Form

College of Applied Sciences and Arts • *School of Nursing*
One Washington Square • San José, California 95192-0057 • 408/924-3130 • Fax 408/924-3135

AGREEMENT TO PARTICIPATE IN RESEARCH AT SAN JOSE STATE UNIVERSITY

PURPOSE AND BACKGROUND:

Margaret Fischer, R.N., B.S.N., is conducting a study to examine the attitudes of school nurses in special education toward nursing care plans. I am being asked to participate in this study because I am presently employed as a school nurse in special education.

PROCEDURES:

If I agree to be in the study, the following will occur:

1. I will be interviewed by the researcher for approximately one hour. The interview will be audiotaped, then transcribed. Notes may be taken by the researcher during the interview. I will be asked to describe the methods that I use in planning care for students with health problems.
2. I will bring to the interview a copy of a plan that I have developed and am currently using, if available. Before giving the plan to the researcher, I will remove all identifying information so that the student's anonymity is protected.
3. The interview will occur outside my place of employment, at a mutually agreed-upon location and time.
4. The researcher may contact me by phone following the interview to clarify information shared during the interview.

RISKS/DISCOMFORTS:

1. I may feel discomfort or embarrassment with being interviewed or audiotaped.
2. My participation is voluntary. I may decline to participate or answer a question or withdraw from this study at any time without jeopardizing my relationship with the researcher, my employer, or San Jose State University.
3. There is a potential risk of loss of privacy. Confidentiality will be protected as far as possible under the law. My name will not be revealed, either in storing the data or if the results are published. Numbers, rather than names, will be used for storing and analyzing the data. All audiotapes will be erased at the end of this study.

BENEFITS:

This study is not expected to benefit me directly. However, the information that I provide may help improve the way documentation is done by school nurses.

COSTS:

There will be no expense to me as a result of taking part in this study with the exception of the possible cost of transportation to the interview site if I decline to be transported by the researcher.

PAYMENT:

I will receive a free lunch or dinner at the time of the interview in appreciation of my participation. If I decide to withdraw prior to the interview, I will not receive any compensation.

QUESTIONS:

Any questions concerning my participation will be answered by Margaret Fischer at (303) 841-7544. Complaints about the research may be presented to Bobby Gorenberg, D.N.Sc., Nursing Department Chairperson, at (408) 924-3130. Questions or complaints about the research, subjects' rights, or research-related injury may be presented to Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

CONSENT:

I have received a signed and dated copy of this consent form to keep.

Having read the information provided above, I have made a decision as to whether or not to participate in this study. My signature below indicates that I willingly give my consent to participate in this study.

Signature of Study Participant

Date

The researcher's signature below indicates agreement to include the above person as a subject in the study and attestation that the subject has been fully informed of his or her rights.

APPENDIX C
Interview Guide

Interview Guide

1. How do you first become aware of a student's health needs?
2. How do you determine what needs to be done at school to meet the student's health needs?
3. Do you develop a plan of action for meeting these needs? If so, what does it look like? Is it written down anywhere?
4. What information do you put in these plans?
5. Does anyone provide input in developing these plans? If so, who?
6. May I see a sample of one of these plans?
7. Where are these plans used and by whom?
8. How do you know if your plans are effective?
9. What do you do if your plans aren't effective?
10. Do you ever go back and review a plan? If so, how often?
11. Do you plan for unexpected health problems for your students?
If so, how?
12. How do you determine for which students you will develop these plans?
What we have been talking about is basically a kind of nursing care plan.
13. Have you ever received instructions on how to write care plans? If so, where and how long ago?
14. Have you ever used a nursing care plan? If so, where and how long ago?
15. What are your feelings about these kinds of care plans?
16. How useful do you feel care plans would be for your students?
17. What makes your current form of documentation more useful to your practice than the care plan?

18. Did you know that the American Nurses' Association's Standards for School Nursing Practice say that we should use this kind of care plan?

What are your feelings about this?

19. What do you envision as the ideal written format for ensuring health care for your students, given that you had sufficient time and support to develop and use it?