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The School nurse role as perceived by elementary and middle school teachers

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school teachers**

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San Jose State University, 1992

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**THE SCHOOL NURSE ROLE AS PERCEIVED BY ELEMENTARY AND
MIDDLE SCHOOL TEACHERS**

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

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

**By
Nancy Sadik
May, 1992**

APPROVED FOR THE DEPARTMENT OF NURSING

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ABSTRACT

THE SCHOOL NURSE ROLE AS PERCEIVED BY ELEMENTARY AND MIDDLE SCHOOL TEACHERS

by Nancy Sadik

This thesis identifies the school nurse role components as perceived by elementary and middle school teachers. A descriptive, survey design was used. The School Nurse Service Data Collection Tool was used to collect data from teachers (N = 170). The data were analyzed to determine which services teachers feel are important for the school nurse to provide and to determine if these vary among different groups of teachers. The data indicate that teachers feel the most important school nurse services are within the role of provider of client care. These services include hearing and vision screening, provision of emergency care, identification of child abuse, investigation of health concerns, and communication with families and medical professionals. Ranked least important by the teachers were recording attendance, coordination of lunch program, providing TB testing for staff, health counseling for staff, and community activities. Significant differences were found among demographic groups for five items.

ACKNOWLEDGEMENTS

I wish to thank Joanne O'Dea for her assistance and support and for her commitment to the highest standards of school nursing practice. I am grateful to the school nurses and health clerks who enthusiastically assisted in data collection. A special thanks to Dr. Virginia Young for her guidance, enthusiasm, and good humor. This study was conducted on behalf of our school children; may they always enjoy good health and success in school!

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Chapter 1

INTRODUCTION

Since its beginnings in the early 1900's the role of school nurses has been evolving in order to meet the changing health needs of the school community. As their role has changed, school nurses have expressed concern about role definition and have attempted to clarify different aspects of their role. The focus of the first school nurses was the control of communicable disease. Today, with the advent of antibiotics and improvements in sanitary systems, communicable disease is less of a school health concern. School nurses now face a new set of complex health problems. These have been labeled the "new morbidity of childhood" and include developmental delays, learning difficulties, and emotional and behavioral problems. According to the National Center for Health Statistics, nearly 20% of young people ages 3 to 17 years were found to have had one or more of these conditions (Zill & Schoenborn, 1990). Although they have attempted to meet these increasing and significant health needs, a 1970 study revealed that "school nurses questioned whether or not school administrators... would ever recognize their role as being more than a giver of first-aid" (Regan, 1976, p. 519). In addition, throughout the 1970's, as the cost of education increased and funding decreased, school nurse positions were eliminated (Wold, 1981). These cutbacks suggested that the school districts were not recognizing the increasing and complex health problems of the students or the contributions of the school nurse.

The California Commission on Teacher Credentialing (CTC) Standards of Quality and Effectiveness for Developing and Evaluating Programs of

Professional School Nurse Preparation in California was originally published in 1988 and revised in 1989. This document identified six role concepts for professional school nursing practice. In spite of these guidelines for school nursing, California school nurses have continued to express job stresses which may be due to lack of clear role delineation. The school nurse frequently has been hassled by constant interruptions, not enough time to finish work, high student to nurse ratio, and inadequate work environment (Young & Quick, 1991). Teachers who utilize the nurses' services in the school may or may not have role perceptions congruent with the nurses' role perceptions. This lack of role delineation may be contributing to the stresses experienced by school nurses.

Research Questions

The research questions for this study were: (a) What services do elementary and middle school teachers feel are important for the school nurse to provide? and (b) Do these expectations of the school nurse role vary among different groups of teachers?

Conceptual Definitions

1. Elementary school is a public school which includes classes for children in Kindergarten through Grade 5. Occasional pre-school instructional programs are also included.
2. Middle school is a public school which includes classes for children in Grades 6 through 8.
3. School nurse is a person employed by the school district to provide certain health related services. In California school nurses are required to hold a Registered Nurse license, to have earned a Bachelor's degree, and to

possess a California School Nurse Credential issued by the California CTC (Young-Cureton & Epstein, 1991).

4. Teacher is a person employed by the school district to perform classroom teaching duties. He or she must possess a teaching credential issued by the California CTC.

5. Individual Educational Plan (IEP) is a written plan of action designed by a collaborative team to meet a student's educational needs.

6. Health clerk is a person employed by the school district to perform clerical duties under the direction of the school nurse.

Significance of the Study

In this era of limited funding for California schools it is imperative that the California school nurse provide health services in the most effective and efficient manner possible. Support and cooperation from the classroom teacher are essential. This study helps clarify the teachers' perceptions of the school nurse role and may assist the school nurse to develop and implement a plan to correct any incongruities. Concurrent studies are being conducted using the same questionnaire to describe the school nurse role as perceived by parents and as perceived by California school nurses. Clarification of the school nurse role may facilitate the reduction of hassles in the practice of school nursing and promote the more effective delivery of health services in California elementary schools.

Chapter 2

Review of the Literature

A review of the literature showed that many attempts have been made to define and describe the role of the school nurse in California. Professional nursing organizations and state agencies have defined role components. Legislative bodies have mandated school health services. Educators and researchers have studied school nurse practice and activities. Fewer studies have examined the perceptions of the roles and responsibilities of the school nurse by persons outside the profession.

The school nurse role is described as a broad one, encompassing primary health care, counseling, education, and management of health services. With large student-to-nurse ratios, prioritizing services becomes essential. Limited information was found describing how nurses prioritize their services and which services are highly valued by school administrators, teachers, parents, and students.

A Conceptual Framework

Several attempts have been made by researchers, educators, and legislators to develop and define a framework for school nurse practice. The frameworks have been developed for different reasons: to develop and evaluate education, to evaluate practice, and to facilitate practice.

Oda (1979) developed a framework to describe the complex role of the school nurse. Incorporating three strands, the concepts are:

1. Health supervision, including conducting health assessments, screening programs, and immunization audits; main-streaming handicapped students; and providing emergency care.

2. Health counseling, including advising students, interpreting health conditions to teachers, and recommending management plans for disabilities.

3. Health education, including teaching in the classroom, serving as resource person for teachers, and sponsoring health awareness activities.

Zanga and Oda (1987) described the role of the school nurse very broadly, including counseling, education, providing health services, and consultation. The school nurse addresses

a multitude of minor and often major medical problems... with such divergent issues as emergency care, handicapped children, AIDS and other sexually transmitted diseases, pregnancy, child abuse, emotional problems, absenteeism, family problems contributing to poor school performance, and individualized educational plans (IEPs) for handicapped students.... She is a school-based associate, coordinator, facilitator, educator. (p. 415)

In the text, School Nursing: A Framework for Practice, Wold (1981) identified five basic roles for the school nurse. These are:

1. Manager of Health Care to participate in planning, implementation, and evaluation of school health program.
2. Deliverer of Health Services to deliver needed health services to client system using systematic process to assess needs, plan interventions, and evaluate outcomes.
3. Advocate for Health Rights of Children to act as advocate for health rights of children and their families both within school setting and between school and community at large.

4. Counselor for Health Concerns of Children, Families, and Staff to provide health counseling and guidance for client system on individual basis or within group setting.
5. Educator for School/Community Health Concerns to participate in health education program activities for children, youth, school personnel, and community. (p. 22)

These role components were based on guidelines issued by the American School Health Association in 1974. Wold recommended that the school nurse implement these roles through use of a conceptual framework made up of five strands. These are (a) public health, (b) adaptation, (c) helping relationships, (d) systematic process, (e) and tools. Although it was originally published in 1981 by Mosby, Wold's text is the most recent and comprehensive text book on school nursing and continues to be the referenced authority.

In 1983 the American Nurses' Association (ANA) Task Force on Standards of School Nursing Practice published its landmark Standards of School Nursing Practice. These were developed as a result of a documented need for a unified, nationally accepted standard of practice for school nursing. This task force identified eight standards and each was described with rationale, structure criteria, process criteria, and outcome criteria. The ANA (1983) standards of school nursing are:

Standard I. Theory. The school nurse applies appropriate theory as the basis for decision making in nursing practice....

Standard II. Program Management. The school nurse establishes and maintains a comprehensive school health program....

Standard III. Nursing Process. Includes individualized health plans which are developed by the school nurse....

Standard IV. Interdisciplinary Collaboration. The school nurse collaborates with other professionals in assessing, planning, implementing, and evaluating programs and other school health activities....

Standard V. Health Education. The nurse assists students, families, and groups to achieve optimal levels of wellness through health education....

Standard VI. Professional Development. The school nurse participates in peer review and other means of evaluation to assure quality of nursing care provided for students. The nurse assumes responsibility for continuing education and professional development and contributes to the professional growth of others....

Standard VII. Community Health Systems. The school nurse participates with other key members of the community responsible for assessing, planning, implementing, and evaluating school health services and community services that include the broad continuum of promotion of primary, secondary, and tertiary prevention....

Standard VIII. Research. The school nurse contributes to nursing and school health through innovations in theory and practice and participation in research....(pp. 3-16)

The California CTC Standards of Quality and Effectiveness for Developing and Evaluating Programs of Professional School Nurse Preparation in California were originally published in 1988 and revised in 1989. The "Ryan Act,"

implemented in California in 1974, changed the requirements for the California Health Services Credential: School Nurse and required additional course-work equal to a fifth academic year. These standards were developed and authored by a group of school nurse practitioners and educators with representatives from the State. This document identifies six role concepts for California school nurses. These role concepts are based upon the standards developed by the ANA and incorporated the ANA functions. The California school nurse role concepts as described by the California CTC (1989) are:

I. Provider of Client Care. The school nurse applies appropriate theory as a basis for decision-making in nursing practice (ANA Standard I)....

The school nurse incorporates the use of the inductive problem-solving process into nursing practice (ANA Standard III)....

II. Planner and Coordinator of Client Care. The school nurse establishes, maintains, and coordinates a comprehensive school health program, and contributes to the formulation of school health policy (ANA Standard II).... The school nurse collaborates with school and other professionals to meet the health, developmental, and educational needs of pupils (ANA Standard IV).... The school nurse is cognizant of the role of the nurse as a community health professional who utilizes knowledge of community health systems and resources and who functions as a community liaison (ANA Standard VII)....

III. Client Teacher. The school nurse assists pupils, families and the school community to achieve optimal levels of wellness through appropriately designed and delivered health education (ANA Standard V)....

IV. Within the Discipline of Nursing. The school nurse identifies, delineates and clarifies the nursing role, promotes quality assurance in practice, pursues continued professional development, and demonstrates professional conduct (ANA Standard VI)....

V. Investigator. The school nurse contributes to nursing and school health through innovations in practice and participation in research-related activities (ANA Standard VIII)....

VI. Communicator. The school nurse uses effective and cogent written, verbal and non-verbal communication skills, and recognizes the importance of effective communication in school nursing practice....

(pp. 29-37).

These frameworks of school nursing practice have many similarities. All include the roles of care-giver, program manager, counselor, and educator. In this study, the California CTC standards were used as a conceptual framework for evaluation of the data. The framework developed by Oda (1979) neglects to incorporate the nursing process and attempts to separate health assessment from health counseling (intervention). Oda did recognize the fact that school nurse services often overlap the three strands. The California CTC standards incorporate these functions (assessment and intervention) into Role Concept 1, Provider of Client Care. The California CTC standards also recognize the importance of professional development, research, and communication. These standards of practice are not included by Oda. Because of their relevancy to contemporary practice in California, the standards of the California CTC have been utilized as a basis for evaluating the role of the school nurse in this study.

Related Literature

Several studies have been done to determine how teachers perceive the school nurse role. Lucero (1978) collected data from 88 elementary and secondary teachers on a 34-question opinionnaire. The school nurse services which the teachers believed to be most important were: handling child abuse cases (92%); handling all major accidents (96%); vision and hearing screening and referral (97%); reporting vision and hearing screening to the teacher (96%); and working within the framework of school law, policy and nursing ethics (94%). Least important services were: arranges for clothing for needy school children (58%), transports children home when they are ill (58%), and assists in promoting the optimum health of school staff (51%). No separate analysis was made of data from regular or special education teachers nor elementary or secondary teachers. Lucero recommended further study with a larger number of teachers and also studying nurses' perceptions of their role.

In 1989, Nehls studied services of school nurses at the secondary level which were expected by students, parents, and classroom faculty. Her questionnaire listed 39 possible role components for the school nurse and asked respondents to rate them according to importance on a scale of 1 to 4. Thirty-six questionnaires were returned by teachers. The services ranked highest by these teachers were: emergency care, a list of students with major health problems, first aid policies established and maintained by the nurse, response to teacher concerns about student health problems, and maintenance of student health files. Least important services included: assisting with attendance records, evaluating students for eligibility for school lunch program,

in-service programs for parents, health counseling for staff, and home visits regarding health problems. Nehls recommended replication of her study in other districts and with elementary school teachers.

A similar descriptive survey was done in England by Hanson (1987). Forty-six teachers were asked which tasks school nurses should do. The most frequently requested services were: vision testing, preparation for and assisting at school medicals, home visits, and head inspections. Least frequent were first aid and attending parents' evenings at school. These results may be different from the California studies because of the different manner of providing school health services in England. The nurse is employed by the health authority and is identified as a "peripatetic nurse" and has limited contact with the school faculty. Given this role identity, it is reasonable to expect that the role of the school nurse would be to conduct home visits and to be less involved in providing school based first aid services.

Several studies have looked at services required for handicapped children or the special education population. Goodwin and Keefe (1984) received responses from 82 special education teachers and 78 principals. As a part of the special education programs, these faculty felt the following should be a component of the school nurse role: screening students for handicaps (91%), instruct/counsel students and families regarding health needs and treatments (85%), participate in multidisciplinary team meetings (84%), write health component of an IEP (72%). The author concluded that it is encouraging that the findings did support the school nurse roles of coordinator of care, health promoter, safety advisor, and team member.

Crossland et al. (1986) studied records of 785 handicapped students and analyzed health problems and interventions by the school nurse. During one school year, teachers referred 38% of these students to the nurse because of health problems. Of these, the nurses handled two out of three referrals themselves and referred one of three to outside health care providers. Reasons for these referrals were not documented. IEPs were examined; and though 26% of these children had identified diseases or specific medical conditions, school nurses had been involved in only 0.1% of the IEP processes. The authors concluded that the school nurses were not coordinating care of these children. The nurses' role in assessment was limited to hearing and vision screening. One factor possibly contributing to this lack of service was that the 50 nurses studied were all employees of the local health departments, assigned for part-time service in the schools. They were on duty in the schools less than 15% of the time.

Cowell (1988) developed a "School Nurse Activity Study" instrument and was able to document the amount of time school nurses spent caring for special education children. Though special education children represented 9.6% of the enrollment, they accounted for 37% of the total number of children seen. Services to special education students accounted for 48.2% of school nursing time. Nursing activities were primarily assessment and direct services.

Task differentiation among elementary, middle, and high school nurses was examined by Gilman, Williamson, Nader, Dale, and McKevitt (1979). For the younger students, more time was spent by the nurse in contact with adults responsible for the child. There was greater involvement of the nurse in parent and staff contact. School nurse role components and teachers' perceptions

could be expected to be different for elementary and secondary school teachers.

Young and Epstein (1991) presented a discussion of ways in which the California school nurse is able to intervene to affect the many variables which influence student achievement. They cited recent Arizona studies which demonstrated that healthy children learn better. The California school nurse is uniquely qualified to address the multiple problems which may impact students' academic performance.

Throughout the literature, the school nurse role is defined as being broad and expansive. The nurse is expected to be counselor, educator, primary health care provider, and researcher. Special education students were identified as requiring extra services from the school nurse (Cowell, 1988). Services valued most by teachers were management of first aid, communication of students' health care needs, and vision and hearing screenings. In studies where importance of services was measured (Hanson, 1987; Lucero, 1978; Nehls, 1989), most services were rated as important or very important. Though the work of the school nurse is valued, with budget and time constraints it may be impossible for the nurse to fulfill these expectations. In order to prioritize school nurse services it is necessary to clarify the significance of these role components.

Chapter 3

RESEARCH METHODOLOGY

The purpose of this study was to determine which services elementary and middle school teachers believe are the most important for the school nurse to provide. A descriptive, survey design was used. This design was chosen as the most effective way of collecting information regarding the opinions of a large number of teachers. A questionnaire which had previously been used (Nehls, 1989; V. Young, personal communication, April 29, 1991) was selected so that results of these and other concurrent studies might be compared and contrasted.

The Data Collection Tool

The School Nurse Service (SNS) Data Collection Tool was selected for use. This tool was developed by Nehls (1989) and originally consisted of 44 questions. The first 39 questions listed possible school nurse services. Respondents were asked to determine whether it was very important, important, somewhat important, or not important for the school nurse to include that service in her/his scope of practice (Nehls, 1989). Questions 40 and 41 asked about the appropriateness of the nurse teaching or counseling about selected health topics. Question 42 asked respondents to list the eight most important services, and question 43 asked for any additional important services not identified.

Oda's (1979) three strands of school nursing, education, counseling, and management, were used to develop this tool. Nine school nurse experts were consulted to evaluate the questions for completeness, clarity, and validity. The tool was pilot tested on a small group of parents, teachers, and students. Input

of these groups was incorporated into the final questionnaire. No studies were done to evaluate reliability.

In 1990 the questionnaire was slightly modified and used by Young and Palmer (personal communication, May 10, 1991) to collect data from California school nurses. Minor changes were made in the wording in questions number 3, 11, 18, 26, 29, 35, and 38. Questions 29 through 45 were added. Permission for use of the questionnaire in this study was sought and received from Nehls as well as from Young and Palmer (see Appendix A).

In this study, questions 1 through 45 were used as revised by Young and Palmer. Questions 46 and 47 were eliminated as many of these services (i.e., AIDS, sexually transmitted diseases, birth control, abortion) were considered to be a component of secondary, rather than elementary, health services. Question 49 which asked for a ranking of school nurse services was omitted in order to simplify statistical analysis. Question 50, which was an opened ended question asking for any school nurse services not previously mentioned, was shortened to provide three lines for responding rather than eight. A demographic information sheet was included as part of the questionnaire. It requested information about the teacher's length of teaching experience, length of employment in the district, age, sex, grade level, and type of class (regular or special education). Thus the questionnaire used in this study had 45 questions and a demographic information section (see Appendix B).

Research Sample

A convenience sample was selected which included all elementary and middle school teachers in a San Francisco Bay area school district.

Questionnaires were distributed to all teachers and participation was voluntary. The district is a suburban/urban district encompassing approximately 13,000 students in Grades 1 through 12. The socioeconomic make-up of the district is diverse and includes many non-English speaking students. In the 1990 - 1991 school year, school nurse services were provided at a nurse:student ratio of 1:2,879. This researcher has been employed by this school district as a school nurse for two years.

Data Collection

Approval to conduct this research was obtained from the San Jose State University Human Subjects Institutional Review Board. The research was deemed to be exempt from board review since it involved the use of survey procedures with no risk to the subjects' liability, financial standing, employability, or reputation. Approval was also sought and received from the participating school district (see Appendix C). The budget was funded by the researcher.

The assistance of the school nursing staff was approved and supported by the school district's Health Services Specialist who coordinates the school nursing program. The research plan was presented and discussed with the school district's nurses and their support was enlisted. An implied consent to participate statement and a statement describing the research (see Appendix D) was attached to each questionnaire, thus creating the questionnaire packet. Questionnaire packets were distributed to teachers' mail boxes at all school sites by district school nurses and health clerks. The teachers were asked to return the completed questionnaires within one week to the school nurse,

health clerk, or to the school nurse's school mail box. Three hundred eighty questionnaires were distributed, and 170 were completed and returned by teachers.

Analysis Procedures

Computerized statistical analysis was performed on the data to determine frequency, mean, and standard deviation values. School nurse services were classified according to California CTC Role Concepts. Data was grouped according to demographic variables. The Kruskal-Wallis test was done to determine significant differences between demographic groups. Analysis and interpretation of this data will be presented in chapter 4.

Chapter 4

ANALYSIS AND INTERPRETATION OF THE DATA

The purpose of chapter 4 is to present the findings of this study. The sample will be described first, followed by the results of the data analysis. The objectives of this study were to determine what services elementary and middle school teachers feel are important for the school nurse to provide and to determine if the expectations of the school nurse role vary among different groups of teachers. The SNS Data Collection Tool was modified and used to collect data from teachers. Computerized statistical analysis was performed on the data to determine frequency, mean, and standard deviation values. The Kruskal-Wallis test was done to determine significant differences between demographic groups. The results of the data are presented in the following order: (a) characteristics of the sample; (b) frequency, mean, and standard deviation values; (c) analysis of differences among groups; and (d) analysis of responses to the open ended question which solicited additional comments from the teachers.

Characteristics of the Sample

The sample for this study was the total teacher staff of one California school district. Questionnaires were distributed by school nurses to 380 teachers. Questionnaires were completed and returned by 170 teachers, for a return rate of 45%. The distribution population ($N = 380$) included 260 elementary teachers with a return of 116 questionnaires, 45%, and 120 middle school teachers with a return of 41 questionnaires, 34%. Table 1 summarizes the profile of the sample. Demographic groupings for grade taught, age, years

of teaching experience, and years employed by the school district were collapsed to facilitate analysis.

Table 1
Distribution of the Sample

Group	Frequency	%
<u>Grade taught</u>		
K - 2	62	36.5
3 - 5	54	31.8
Middle school	41	24.1
Unknown	<u>13</u>	<u>7.6</u>
Total	170	100.0
<u>Years of teaching experience</u>		
1 - 9 years	49	28.8
10 + years	<u>121</u>	<u>71.2</u>
Total	170	100.0
<u>Years employed by this district</u>		
1 - 9 years	63	37.1
10 + years	<u>107</u>	<u>62.9</u>
Total	170	100.0
<u>Age</u>		
20 - 39	47	27.6
40 +	<u>123</u>	<u>72.4</u>
Total	170	100.0

(table continues)

Group	Frequency	%
<u>Gender</u>		
Male	19	11.2
Female	<u>151</u>	<u>88.8</u>
Total	170	100.0
<u>Special or regular educator</u>		
Special .	33	19.4
Regular	<u>137</u>	<u>80.6</u>
Total	170	100.0

Frequency and Means of Responses

Data from the total sample were analyzed to determine the frequency and mean of the teachers' responses. Teachers were asked to rate the importance of possible functions of the school nurse: 1, not important; 2, somewhat important; 3, important; or 4, very important. The mean of all answers to all questions was 3.0. This may indicate that the teachers felt that any and all functions of the school nurse are important and valued. This interpretation is supported by teachers' responses to the open ended question asking for additional comments.

Analysis of individual questions indicated that the highest mean ratings for individual school nurse functions were 3.9 and 3.8. These included: Item 2, hearing and vision screening ($\bar{M} = 3.9$); Item 5, providing emergency care ($\bar{M} = 3.9$); Item 34, identifying and referring child abuse ($\bar{M} = 3.9$); Item 3, liaison with family, doctor, teacher ($M = 3.8$); and Item 35, investigating health concerns ($\bar{M} =$

3.8). Also considered to be very important were: Item 33, list health problems for teachers ($\underline{M} = 3.7$); Item 18, attendance problems ($\underline{M} = 3.6$); Item 30, student drug abuse ($\underline{M} = 3.6$); Item 31, first aid policies and procedures ($\underline{M} = 3.5$); and Item 36, accurate health files ($\underline{M} = 3.5$).

Teachers believed the least important functions on the SNS Data Collection Tool were described in: Item 19, recording attendance ($\underline{M} = 1.4$); Item 22, coordinating lunch program ($\underline{M} = 1.6$); Item 9, health counseling for staff ($\underline{M} = 2.0$); and Item 38, tuberculosis (TB) testing of staff ($\underline{M} = 2.0$). See Table 2 for ranking of all question responses.

Table 2

Ranking of Mean Responses of Total Sample

Rank	Question	Role concept	Mean
1	2. Hearing and vision screening	I	3.9
1	5. Provide emergency care.	I	3.9
1	34. Identify and refer child abuse	I,II	3.9
4	35. Investigate health concerns for teachers	I,II	3.8
4	3. Liaison student, family, doctor, teacher	II,VI	3.8
6	33. List health problems for teachers	II,VI	3.7
7	18. Screen attendance problems	I,II	3.6
7	30. Identify and refer drug abuse problems	I,II	3.6
9	36. Maintain health files	II	3.5

(table continues)

Rank	Question	Role	Mean
10	4. Health hazards at school site	II	3.4
10	7. Health counseling for students	I	3.4
12	6. Prevent communicable diseases	II	3.3
12	11. Participate in committee to assess health status	I	3.3
12	16. Make home visits	II	3.3
12	17. Resolve students' family problems	I	3.3
12	44. Evaluate own practice	VI	3.3
17	26. Rule out health problems for spec ed enrollment	I,II	3.2
17	29. Assess immunization status	II	3.2
17	40. Monitor administration of medications	I,II	3.2
20	14. Resource for teacher on alcohol/drug education	III	3.0
20	15. Assess for emotional problems	I	3.2
20	24. Investigate home teaching requests	II	3.2
20	25. Screen special physical education applications	II	3.2
20	31. First aid policies and procedures	II	3.0
20	32. Inservice on first aid for staff	III	3.0
20	41. Plan budget for the health program	II	3.0
27	13. Classroom alcohol/drug education	III	2.9
28	1. Classroom teaching	III	2.8
28	42. Document, evaluate, and report services	IV	2.8
28	43. School board presentations	VI	2.8
31	10. CPR instruction for students and staff	III	2.7

(table continues)

Rank	Question	Role	Mean
31	12. Coordinate services for handicapped students	II	2.7
31	21. Support groups for students	I	2.7
31	28. Inservice for parents	III	2.7
35	23. Develop school disaster plans	II	2.6
36	27. Develop health ed curriculum	III	2.5
37	20. Inservice for faculty	III	2.4
37	39. Provide specialized health procedures	I	2.4
39	37. Provide immunizations for students	I	2.2
40	8. Community activities	II	2.1
41	9. Health counseling for staff	*	2.0
42	38. Provide TB tests for staff	*	2.0
43	22. Coordinate school lunch program	*	1.6
44	19. Record attendance	*	1.4

Note. Items 9, 38, 22, and 19 are not appropriate for the CTC role concepts.

Analysis of the standard deviations showed the largest diversity of answers to Items 24, investigating requests for home teaching ($M = 3.0$, $SD = 1.7$) and 39, providing specialized health procedures ($M = 2.4$, $SD = 1.2$). Lowest standard deviations, indicating a possible unanimity of opinion were found for Items 2, provide hearing and vision screening ($M = 3.9$, $SD = 0.3$); 5, provide emergency care ($M = 3.9$, $SD = 0.3$); and 34, identify and refer child abuse ($M = 3.9$, $SD = 0.3$).

Analysis of Differences Among Groups

Computer analysis of the data was done using the Kruskal-Wallis one-way analysis of variance of ranks (ANOVA - H) to find significant differences in the median responses to the questions. The Kruskal-Wallis test is used to determine whether three or more independent samples come from the same population (Huck, Courmier, & Bounds, 1974, p. 210). The Kruskal-Wallis is also valid for use with two groups (B. Shifflett, personal communication, March 10, 1992).

There were five significant differences among the demographic groups at the .01 level. Findings from the first demographic categories to be discussed are responses by grade level taught. The three categories used are: primary (Kindergarten through Grade 2), upper (Grades 3 through 5), and middle school (Grades 6 through 8). Question 16 (Should the school nurse make home visits?) was considered to be significantly more important by middle school teachers than by primary teachers, $\chi^2(2, n = 103) = 12.5378, p = .0019$. Monitoring the administration of medications (Question 40) was considered to be more important by teachers of Grades 3 through 5, than by middle school teachers, $\chi^2(2, n = 95) = 10.05, p = .0065$. Question 19, recording of attendance, though rated low by all teachers, was considered to be less important by Kindergarten through Grade 2 teachers than by middle school teachers, $\chi^2(2, n = 103) = 9.2645, p = .0097$.

Responses were analyzed for gender differences. Only one difference was noted. Question 20, providing inservice for faculty, was significantly more important for female than male teachers, $\chi^2(1, N = 170) = 6.7367, p = .0094$.

Teachers were divided into two demographic groups according to length

of employment in the school district. The groups were zero through nine years and ten or more years. Question 32, providing inservice on first aid for school staff, was considered more important by teachers employed by the district for a longer time (10 or more years) than by teachers with less seniority, $\chi^2(1, N = 170) = 7.2089, p = .0073$.

Demographic categories were used for two age groups (20 through 39 and 40 or more years), for regular versus special education, and for teachers with different years of teaching experience (0 through 9 years and 10 or more years). No significant differences were found at the .01 level among any of these categories.

Responses were analyzed according to the framework defined by the California CTC Standards document. Many school nurse services described in the SNS Tool overlap among several role components. See Table 2 for the role concept for each school nurse service listed. The four services perceived to be most important--screening, emergency care, child abuse, and health concerns--are primarily components of Role Concept I, Provider of Client Care. The services ranked fourth and fifth in importance--investigating health concerns for teachers and functioning as a liaison with parents, student, doctor, and teacher--include Role Concept II, Coordinator of Care, and Role Concept VI, Communicator.

Role Concept III, Client Teacher, is incorporated in eight questions. These are perceived to be of lesser importance with rankings at 20 through 37. Two services included on the SNS Tool, recording attendance and coordinating school lunch program are not appropriate role functions according to the

authors of the California CTC Standards document. Both received the lowest rankings of importance.

Responses to the Open Ended Question

Question 46 asked the teachers to list any additional services the school nurse should provide. Responses were written on 35 of the 170 questionnaires. Most of the responses were supportive of the the school nurse and recognized the value of her services. Most comments ($n = 24$) were made by female elementary school teachers. Female middle school teachers responded seven times and male middle school teachers four times.

Most frequently mentioned ($n = 23$) was the need for increased time for the nurse to be at the school site. Typical comments were: "There should be a full time nurse on site"; "Though I checked a lot of 'very importants,' I realize that the school nurses' hours (at each school) make it impossible to complete each service. I wish each school had a nurse at least 3 days a week"; "With the limited time allowed our School Nurse, she's a miracle worker if she can do even half of the jobs assigned her already"; "I feel we need a full-time nurse at the middle school....I place a high value on school nursing services." Two teachers suggested using more clerical help to allow the school nurse more time for "important duties."

Several teachers mentioned services already listed on the SNS Data Collection Tool. Among these were emergency care, liaison with parents, classroom teaching, and investigation of attendance problems. A few teachers listed services not mentioned on the questionnaire. These services included: (a) to communicate goals with the staff, (b) to stress appropriate motor

development skills, (c) to communicate to teachers the names of students who frequently visit the nurse, (d) to teach parents about hygiene of their children, and (e) to screen staff health problems causing absences.

The purpose of this study was to determine which school nurse services teachers feel are most important. In this chapter the characteristics of the sample were discussed. The findings of the SNS Data Collection Tool survey were presented in Table 2. Differences among role concepts were displayed and discussed, differences among demographic groups were presented, and responses to the open ended question were described. Chapter 5 will discuss the implications of this study.

Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

The research questions for this study were: (a) What services do elementary and middle school teachers feel are important for the school nurse to provide? and (b) Do the expectations of the school nurse role vary among different groups of teachers? The SNS Data Collection Tool was used to collect information from 170 teachers. The data were analyzed and ranked according to importance. Teachers perceived the most important school nurse services to be in the areas of screenings, emergency care, child abuse, health concerns, and communicating. Data were classified according to the California CTC Role Concepts. Role I, Provider of Client Care, was felt to be most important. The data were grouped and compared according to demographic variables. Five differences were found among demographic groups. This chapter includes a discussion of the findings, limitations of the study, recommendations for further research in this field, and recommendations for school nursing practice.

Conclusions

The findings of this study indicate that the teachers surveyed felt the services which may be provided by a school nurse are important. The teachers perceived the most important services to be provision of emergency care; hearing and vision screening; identifying and referring child abuse; investigating health concerns; and liaison with family, doctor, student, and teacher. These school nurse services do correspond with the school nurse role concepts as described by the California CTC (1989) in the roles of Provider

of Client Care (emergency care, screening, child abuse, and investigating health concerns) and Communicator (liaison). The roles of planner and coordinator, teacher, professional, and researcher were seen as less important. In the district studied, the school nurse coordinator has frequently filled the role of planner and coordinator for health services on the district level, and thus the school nurse at the school site may not be viewed in this role.

Though considered to be somewhat important ($M = 2.4 - 3.0$) the role of teacher is perceived to be of less importance. Providing inservice for faculty and parents were two of the lower priorities. Though the nurses' professional knowledge was valued for providing client care including consultation and collaboration with the teachers, the nurse's ability to teach that knowledge was not recognized.

The findings of this study correspond closely with the findings of Nehls' (1989) survey of teachers. Services found to be ranked among the ten most important in both studies were: hearing and vision screening, providing emergency care, investigation of health concerns, liaison, listing health problems, maintaining health records, and health counseling for students. Least important services in both studies included: recording attendance, coordinating school lunch program, health counseling for staff, providing immunizations for students, and inservice for faculty. Nehls' study did not rank the identification and referral of child abuse an important role component. In this study, the district policy has been that school nurses are involved in all cases of abuse which are reported; and this may account for the increased significance. Lucero (1978) reported similar findings. Teachers also ranked the following

activities most important: first aid (96%), hearing and vision screening (96%), and handling child abuse (92%). Least important in Lucero's work were also promoting health of the staff (42%) and curriculum development (48%).

Though differences might have been expected between special educators and regular educators (Cowell, 1988; Crossland et al., 1986; and Goodwin & Keefe, 1984), none was found. In the district studied, most severely handicapped students are not educated within the district schools, but are placed in special county programs. Differences may be found between regular educators and these county employed educators of more severely handicapped children. The ranking of provision of specialized health care services by the school nurse was found to be relatively low in this study ($M = 2.4$). This service may be more highly valued by teachers with a larger number of students requiring this care. As larger numbers of handicapped children are mainstreamed into the regular education classes, these services may become more highly valued by teachers.

Limitations

Teachers in only one school district were surveyed. Their responses may have been influenced by their individual experiences in the utilization of school nurse services or by their individual rapport with their school nurse. Their responses may also have been influenced by unique factors in their student population or in administrative policies. At the time of data collection the teachers were involved in contract negotiations. Results may not be generalized to all school districts. Differences based on gender may be misleading due to the small number of participating male teachers ($n = 19$).

The use of a questionnaire versus interviews may be a limitation as the questionnaire may have a lower rate of return which could bias the results. Though the closed-ended survey format restricts the scope of responses, it was hoped that the open-ended question number 46 would reduce this limitation.

Recommendations for Researchers

Further research should be done to study the diverse roles and practices of school nurses. Many similarities were found in the three different populations studied (Lucero, 1978; Nehls, 1989). A replication study could be done with special educators or with a larger number of secondary educators. School nurses report being hassled by constant interruptions, and teachers consistently value the provision of emergency care services. Further research could be done to find a possible intervention for this situation. Are there any effective ways to decrease the need for first aid services? Teacher, parent, or student education may be helpful.

A surprising finding in this work as well as in Lucero (1978) and Nehls (1989) is the low value teachers placed on the provision of health counseling for school staff. As most school districts do not employ other employee health services, the school nurse is frequently seen as the on site health expert and is often consulted about staff health concerns. Wording of the question might be changed as there may be confusion about the meaning of "health counseling". Teachers might put a higher value on health education. This role component is not specifically identified in the California CTC (1989). Research could be done to determine if this role is included in school nurse job descriptions and is being practiced.

Recommendations for Practice

As the school nurse faces increasing needs in her student population (Zill & Schoenborn, 1990), stressors in the workplace (Young & Quick, 1991), and the ever present threat of cut backs in funding, what can she do to make her work most efficient and effective? Understanding the teachers' perceptions of the school nurse role may be helpful. Teachers appear to consistently value assistance with providing emergency care; evaluation of hearing and vision; handling child abuse; and communication with family, doctor, and student. Least important are mundane paper work (attendance recording and school lunch coordination), health promotion for staff, and teaching and learning for both staff and students.

In recognition of these values, the school nurse may wish to promote her ability as an educator. The frequent requests for emergency care assistance may be met more effectively by teaching the school staff to handle emergency care. With a stronger knowledge base, teachers may be better able to communicate with family, students, and medical professionals. In contrast to classroom teaching which could increase demands on the school nurse's time, inservice of teachers and staff may improve the efficiency of delivery of care. The school nurse may extend her realm of influence by being seen as a valuable source of knowledge.

Teachers appear to perceive the role of client care giver as most important. By striving for a balance among the six role components as described by the California CTC (1989), the school nurse may actually improve the delivery of client care. She needs to participate as planner and coordinator; as educator; as a professional, promoting quality assurance and professional

development; as a researcher, to improve the level of practice; and as a communicator, to make known the needs of her clientele and the value of her services.

The school nurse services are highly valued by the teachers in this study. The nurse is seen as an expert in emergency care, in hearing and vision assessment and in child abuse intervention. She is valued for her ability to investigate health concerns and to communicate with families, students, and health professionals. School nurses should acknowledge and appreciate this support from the teaching professionals. School nurses can build on this strong base of support and incorporate all role components into their practice in order to facilitate the provision of health services to meet the increasing needs of California's children.

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Appendix A
Permission Letters for Use of Questionnaire

May 20, 1991

Virginia Young, Dr. Ph., R.N.
Associate Professor
San Jose State University
Department of Nursing
San Jose, CA 95192-0057

Dear Dr. Young:

I am delighted to give permission to you and to your students at San Jose State University to make use of the research tool I developed, the School Nurse Services (SNS) Data Collection Tool, and which was subsequently revised. I hope the research for which it is used proves valuable in the advancement of the school nurse profession.

I would like to receive a copy of the results of any studies for which the SNS Data Collection Tool or the revised format is used. It may be mailed to me at the address below.

Best wishes,

Diana J. Nehls, M.S., R.N.
1004 Leland Drive
Lafayette, Ca 94549
(415) 938-2492

101 Malmedy Road
Fort Ord, CA 93941-1512
May 3, 1991

Dr. Virginia Young
School Nurse Program Coordinator
Department of Nursing
San Jose State University
San Jose, CA 95192-0057

Dear Dr. Young and San Jose State Graduate Nursing Colleagues:

This letter gives my written permission to Dr. Virginia Young and San Jose State graduate nursing students (at Dr. Young's discretion) to use, adapt, and revise the School Nurse Service Data Collection Tool of 1991. The School Nurse Service Data Collection Tool was originally developed by Diana J. Nehls for her 1989 research. With Ms. Nehls' written permission, Dr. Young and I adapted and revised Nehls' 1989 Tool to collect my research data at the 41st Annual California School Nurses' Conference in 1991.

After using the 1991 Tool and attempting to analyze my data, I have several recommendations. First, question 49 would be more definitive if participants were asked to rank order the eight most important services. Second, the write-in question 50 prompted school nurses to give many categories of responses in addition to services. Coding these responses has been difficult at best. If asked as open-ended questions, 49 and 50 could potentially generate enough qualitative data for a thesis! Third, according to the data I have analyzed, a few important school nursing services are not encompassed by or specified on the Tool (1991). Consequently, I would revise the Tool (1991) before I would use it again.

If you use the School Nurse Service Data Collection Tool, I would appreciate receiving a brief summary or abstract of your completed research findings. As of June 1, 1991, my new address will be: 10727 Armstrong North, Clovis, CA 93612. I wish you much success in your research efforts.

Yours truly,

Elaine Palmer, BSN, RN

Elaine Palmer, BSN, RN
(209) 323-8189

*cc Nancy Sadik
cc Suzanne Cassel*

Appendix B
Data Collection Tool

PLEASE NOTE

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

42-45, Appendix B

University Microfilms International

Appendix C
Agency Consent Letters

12260 Country Squire Lane
Saratoga, Ca. 95070
March 27, 1991

Bob Carter, Ed.D.
Superintendent
Santa Clara Unified School District
1889 Lawrence Road
Santa Clara, Cal. 95052

Dear Dr. Carter:

As a part of the requirements for my Master of Science degree from San Jose State University, Department of Nursing, I am planning to conduct a study to examine teachers' perceptions of the school nurse role. I would like to distribute a questionnaire to the elementary teachers of Santa Clara Unified School District. A sample of this tool is attached. I will ask the Santa Clara Unified school nurses to assist with the distribution at the schools. My advisor for this project will be Dr. Virginia Young, Department of Nursing, San Jose State University, One Washington Square, San Jose, Ca.

The Human Subjects Institutional Review Board of San Jose State University requires that I obtain written approval from participating institutions on their letterhead. I would greatly appreciate your facilitating this so that I may proceed with the study.

Yours truly,

Nancy Sadik, School Nurse
Santa Clara Unified School District

cc: J. O'Dea

SANTA
CLARA
UNIFIED
SCHOOL
DISTRICT

1000 Lawrence Rd.
P.O. Box 397
Santa Clara, CA
95050
(415) 951-2000
BOB CARTER, EJD
SUPERINTENDENT

April 24, 1991

Dear Nancy,

On behalf of Santa Clara Unified School District I am happy to inform you that your request has been approved to conduct a study examining teachers perceptions of the school nurse role. I would like to request a copy of the summary of your findings at the conclusion of the study.

Cordially,

Joanne O'Dea
Specialist, Health Services

cc: B. Semenoff
D. Meyer

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Appendix D
Implied Consent Statement

**Explanatory Statement About Participation in a Study of:
The School Nurse Role as Perceived by Teachers**

San Jose State University

**Being Conducted by
Virginia Young, D.P.H., R.N.
Nancy Sadik, B.S.N., R.N.**

I understand that I am being asked to participate in a research study. My participation in this study on Teachers' Perceptions of the School Nurse Role will involve answering a short-answer questionnaire one time. It should take no more than 20 minutes to complete the questionnaire. The questions will be about the value teachers place on the different services school nurses may perform.

My consent is being given voluntarily without being coerced. I may decline to answer any question or questions. I may withdraw from the study at any time without prejudice to my relations with the Santa Clara Unified School District or to any relationship I may have with San Jose State University.

I understand there is no risk to participating. There is no direct benefit except for having participated in a research study. I will not receive any compensation for my participation. Results of this study will be available to participants upon request.

The information I provide will remain confidential. This information will be used for scientific purposes only. It will be published in a form in which I can never be identified as an individual. I will not be identified by name.

Any questions I might have about my participation in this study may be answered by Dr. Virginia Young, 408 924-3161. Any complaints about the research procedures may be presented to Dr. Virgil Parsons, Nursing Department Chairman, San Jose State University, 408 924-3130. For questions or complaints about research subjects' rights, I may contact Dr. Serena Stanford, Associate Academic Vice President for Graduate Studies and Research, San Jose State University, 408 924-2480.

My completion of the questionnaire serves to acknowledge my willingness to be a participant in this study. I understand that I can keep this letter of information.