Predicting School Nurse Involvement in Meeting Sexuality Related Needs of Youth in New Jersey

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TEENAGE PREGNANCIES that result in parenthood often produce multifaceted problems. The various components in the chain of events have serious social, economic, medical, and psychological consequences for the mother and for society (*1–3*). The results of recent research, however, have brought us closer to an understanding of adolescent sexual and contraceptive behavior and of the need for preventive educational efforts in early childhood (*4–6*).

In the search for new approaches to the sexuality related needs of youth, various health care groups and programs have been studied. Concurrently, investigative efforts have been aimed at meeting the basic health needs of our children and youth through health services programs in the nation's schools. Central to these efforts has been the acknowledgement of school nurses as key figures in the provision of these services. Attempts have been made increasingly to expand the health service role of the school nurse (*7–10*).

Nurses have been referred to as "gatekeepers" to the health care delivery system, particularly with regard to family planning services (*11*). Questions have been raised concerning the possibility that nurses who express their negative orientations toward sexual behavior overtly or covertly in encounters with clients may be "system barriers" to contraceptive services (*12*).

Sexual and contraceptive attitudes among nurses and other health care groups have been explored in a variety of settings. The findings indicate that permissive attitudes do not relate necessarily to equally permissive professional behaviors (*11a–15*). However, school nurses have been neglected in these research efforts. Because school nurses are particularly close to future and currently sexually active youth, this neglect is most unfortunate.

To fill this research gap, a study was undertaken to

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obtain a description of the characteristics, behaviors, and attitudes of school nurses and the interrelationships of these factors. Special attention was given to the role of these nurses in teaching and counseling about sexuality, contraception, and related needs.

Study Background and Procedures

The State of New Jersey was selected for this study. In 1975, about half of the State's 365,000 females and two-thirds of its 369,000 males aged 15–19 years were sexually active (*16*). An estimated 31,000 of these females had become pregnant, and 12,263 had live births. In addition, 303 youngsters 10–14 years old were known to have given birth in 1975. Thus, in 1975, 13.7 percent of the reported live births in New Jersey were to mothers aged 19 and under. While the percentage of live births to those aged 19 and under decreased by 0.7 percent by 1977 (*17*), the age-specific fertility rate for 15–19 year olds rose from 34.4 per 1,000 in 1975 to 35.3 per 1,000 in 1977.

At the time of the study, New Jersey did not mandate sex education. Instead, local school boards determined the inclusion, content, and placement of any sex or family life education within the general curriculum. However, inclusion of sex education did not guarantee students' exposure to a program because the Parents' Right to Conscience Bill "allows students to be excused from health, family life or sex education classes when in conflict with their parents' conscience or sincerely held religious beliefs" (*18*).

During 1978–79, 768 currently active members of the State school nurses' association were sent a three-part questionnaire that included an assessment of current work status (50 additional nurses had pretested the instrument). A total of 466 usable questionnaires were returned.

The first part of the questionnaire measured attitudes toward various dimensions of adolescent sexuality and contraceptive use. Some examples are: "There should be no legal barrier to adolescents obtaining contraceptive services and supplies" and "Necking and petting are all right for adolescents provided they do not lead to sexual intercourse." Additionally, current sexuality related issues were presented as broad, impersonal statements. Examples of this category include "Abortion is a better choice than giving birth to a child who isn't wanted," "Women will never be free until they have control over their own fertility," and "Contraceptives should be dispensed only through certain specific channels so that indiscriminate sexual relations are not encouraged." Finally, attitudes toward the appropriateness of selected functions were addressed. Included here were functions such as "Providing birth control information at a student's request" and "Heading up sex education programs in the school."

In the second part, the nurses were asked about their functions vis-a-vis planning for, teaching, and counseling about human sexuality. The respondents indicated the numbers of students they counseled individually in the areas of human sexuality, contraception, and abor-

Table 1. Demographic characteristics reported in questionnaire survey of 466 school nurses, New Jersey, 1978

Characteristic	Respondents	
	Number	Percent
Age group (years):		
39 or younger	27	6.0
40–49	126	27.9
50–59	213	47.4
60 or older	84	18.7
No response	16	0.0
Race or ethnicity:		
White	452	98.7
Black	4	0.9
Hispanic	1	0.2
Other	1	0.2
No response	8	0.0
Marital status:		
Single, never married	15	3.3
Separated or divorced	34	7.4
Widow	41	8.9
Married	370	80.4
No response	6	0.0
Mother:		
Yes [1]	424	92.2
No	36	7.8
No response	6	0.0
Religious preference:		
None	14	3.0
Jewish	21	4.6
Protestant	249	54.1
Roman Catholic	164	35.7
An Eastern religion	5	1.1
Other	7	1.5
No response	6	0.0
Frequency of religious service attendance:		
None	30	6.5
Once or twice a year	47	10.2
Several times a year	104	22.6
About once a week	280	60.7
No response	5	0.0
Importance of religion:		
Extremely	137	29.8
Quite	219	47.7
Mild	83	18.0
Slight or none	21	4.5
No response	6	0.0

[1] These 424 school nurses had a total of 794 children.

Table 2. Work status characteristics reported in questionnaire survey of 466 school nurses, New Jersey, 1978

Characteristic	Respondents	
	Number	Percent
Student population:		
500 or less	156	34.3
501–1,000	192	42.2
1,001–1,500	62	13.6
1,501 or more	45	9.9
No response	11	0.0
Percent white students:		
25 or less	28	6.5
26–50	23	5.3
51–75	59	13.7
76 or more	322	74.5
No response	34	0.0
School grades worked:		
Elementary	178	38.6
Elementary and junior high	96	20.8
Junior and senior high	163	35.4
Kindergarten through 12	24	5.1
No response	5	0.0
Number student pregnancies in last year worked:		
0	273	60.6
1–10	134	29.7
More than 10	34	7.5
"Don't know"	10	2.2
No response	15	0.0
School board directive on sex education:		
Yes	153	33.8
No	299	66.2
No response	14	0.0

Table 3. Perceived appropriateness of selected functions and willingness to perform them under a sex education mandate reported in questionnaire survey of 466 school nurses, New Jersey, 1978

Function	Percent respondents	
	Perceived appropriateness	Indicated willingness
Heading, designing, or participating in sex education programs in schools	98.9	88.0
Providing inservice education to school personnel about human sexuality and contraception	85.0	68.5
Providing students with human sexuality and contraception information, counseling, or referrals	95.5	85.4
Determining the contraceptive knowledge and needs of students	82.4	61.8

tion during the past school year, as well as frequency of discussions about selected topics of concern within each major area.

Results

The demographic portrait of the respondents is primarily one of age 50 or older, white, Protestant, and married mothers who consider their religious activities important (table 1).

Of the 95 percent of the respondents who were working at the time of the study, most were in schools in which white students predominated (table 2). (Responses of the 5 percent who were not currently working reflected their most recent positions.) Most of the nurses provided services for large numbers of students at mixed grade levels. Sixty-six percent had not received school board approval for sex education.

Attitudes. When sexuality issues such as women's control of their fertility, premarital sexual behavior, contraceptives, and abortion were presented as broad impersonal statements, the attitudes of the nurses approached a fairly normal distribution. As a group, the nurses were permissive toward adolescents' rights to contraceptive services. They could not, however, endorse premarital intercourse, regardless of whether adolescents used contraceptives.

A comparison of school nurses' perceptions of the appropriateness of selected functions with their willingness to perform them under a sex education mandate is shown in table 3. Although there was a consistently higher endorsement of appropriateness, substantial numbers of the respondents indicated an actual willingness to perform these functions if sex education were sanctioned by legislative mandate.

Functions and degree of involvement. At the time of this study, a majority of the school nurses were not engaged in those teaching and counseling activities that they had endorsed as being appropriate for school nurses. Of the 459 nurses who answered the questions about teaching human sexuality, only 117 (25.5 percent) reported that they were actively teaching this subject. These nurses saw few students during the school year for individual counseling about human sexuality topics, contraception, or abortion (table 4).

The nurses who were actively teaching were asked how often they discussed specific topics within each major counseling area. In the area of human sexuality, the nurses most frequently discussed physical development and physical attractiveness—subjects that often concern pubescent youth and adolescents. In contraception counseling, the fertile period and the reliability

Table 4. Numbers of students counseled during school year reported in questionnaire survey of 466 school nurses, New Jersey, 1978

Number students counseled	Respondents	
	Number	Percent
Human sexuality: [1]		
None	188	45.2
1–5	62	14.9
6–25	107	25.7
26–50	28	6.7
51 or more	31	7.5
No response	50	0.0
Contraception: [2]		
None	354	79.4
1–5	41	9.2
6–25	39	8.7
26 or more	12	2.7
No response	20	0.0
Abortion: [3]		
None	374	83.9
1–5	52	11.7
6–20	18	4.0
21 or more	2	0.4
No response	20	0.0

[1] $\bar{X} = 12.885$; median = 2.184.
[2] $\bar{X} = 3.096$; median = 0.130.
[3] $\bar{X} = 1.01$; median = 0.096.

Table 5. Involvement in sexuality related activities reported in questionnaire survey of 466 school nurses, New Jersey, 1978

Activity	Percent respondents
Teaching:	
Provides inservice education to school personnel	16.9
Teaches human sexuality classes	25.5
Participates in determining health curriculum	29.6
Counseling:	
Sex-related problems	56.2
Human sexuality	55.8
Contraception	20.6
Abortion	16.1
Referring:	
Expressed need for contraceptives	20.3
Suspected pregnancy	34.2
Known pregnancy and prenatal care	28.8
Known pregnancy and abortion	16.3

of proper use of contraceptive methods were most frequently discussed. The nurses who counseled about abortion most frequently discussed where an abortion could be obtained and when and how it is performed. Thus, despite the overall small numbers of students counseled, the nurses met critical information needs.

Equally few students were referred by nurses for contraceptives, confirmation of a suspected pregnancy, prenatal care, or abortion. When referrals were made, the primary place was the local planned parenthood agency.

Table 6. Standard regression coefficients for overall degree of involvement in sexuality related activities reported in questionnaire survey of 466 school nurses, New Jersey, 1978

Independent variables	Overall degree of involvement
Personal characteristics:	
Age	.086
Locus of control	
Parental status	
Frequency of church attendance	
Importance of religion	
Marital status	
Religion	
Attitudes:	
Willingness to perform selected functions	[1].287
Intercourse for adolescents not using contraceptives	−.076
Adolescents' access to contraceptives	
Adolescents' sexual behavior	
Intercourse for adolescents using contraceptives	
Women's control of fertility	
Abortion	
Work status characteristics:	
Grade level	[1].343
Percentage white students	.086
School board sex education directive	[1].154
Number of student pregnancies	
Direct responsibility to school board	
Multiple R	.59
R^2	.31
Total variance explained by all variables	.33

[1] $P < .001$.

To view nurses' overall involvement in the functions examined in this study, an additional variable, "degree of involvement," was created. This variable represents the sum of all activities in which the nurses were engaged, without regard to volume. For example, all nurses who did any counseling about contraception received one additional point, regardless of the actual number of students counseled. The resulting scale ranged from 0 to 11. Component activities and the percentage of nurses reporting each activity are presented in table 5.

To further examine the degree of involvement among the nurses, stepwise multiple regression of the variable with background characteristics and attitudes was performed. Independent variables were grouped categorically as being either personal characteristics, attitudes, or work status characteristics. Overall involvement computed in this way did not show a significant relationship to personal characteristics of the

nurses (table 6). Likewise, attitudes toward substantive issues were not related. However, nurses' willingness to perform selected functions in the context of State-mandated sex education emerged as the second strongest predictor of involvement. In regard to the effects of work status characteristics, working with the higher grade levels predominated. Interestingly, no significant relationship appeared between numbers of student pregnancies and the other variables. Rather, the presence of a school board mandate for sex education emerged as the most significant predictor.

Another view of school nurses' activities can be gained if their functions are considered either preventive or interventive, depending on their time-order relationship to actual or suspected student pregnancies. That is, those actions taken by nurses when students are pregnant, or suspect that they are, are considered as intervention measures; all other actions are considered as potentially contributing to the prevention of unintended pregnancy. The variables that were significantly related to school nurse functions are shown in table 7.

Among the variables considered here, grade level was the most consistently related to school nurse behavior. Although certain professional functions measured in this study are predicated on the fertility or sexual activity of older students, activities such as teaching about human sexuality and shaping content for a health curriculum are not. Yet, these activities occurred more frequently at the lower grade levels, as indicated by the negative relationship.

Discussion and Conclusions

The effect of the racial composition of the student groups is a disturbing finding of this study. Where the student bodies were primarily black, school nurses were most active in meeting pregnancy-related needs; but in schools where the majority of students were white, the nurses were more involved in preventive, educational work such as teaching about human sexuality and participating in health curriculum design.

Also disturbing are the demonstrable effects of numbers of student pregnancies. Understandably, they influence referrals made for suspected or known pregnancies, but they do not influence significantly the occurrence of any preventive activities. Rather, it is the presence of a school board mandate for sex education that predicts preventive efforts.

Being a mother of any age child was not as strong a predictor of a nurse's meeting actual or suspected pregnancy-related needs as was her restrictive attitude toward intercourse among adolescents who did not use contraceptives. However, closeness to children and youth in one's personal life did appear to influence the extent to which one teaches and counsels.

From the findings of this study, several important theoretical and practical conclusions can be drawn. As noted earlier, critical patterns emerged when all reported behavior was considered either preventive or interventive in its time-order relationship to actual or suspected pregnancy. When student needs demanded

Table 7. Summary of significant relationships between predictor variables and preventive and interventive functions of school nurses, as determined by regression analysis

Dependent variables	*Predictor variables*						
	Current work situation			*School board approval of sex education*	*Nurse's parental experience*	*Willing to perform selected functions*	*Restrictive attitude toward intercourse for adolescents not using contraceptives*
	Grade level	*Number student pregnancies*	*Percent white students*				
Preventive							
Inservice education						Positive	
Teaching	Negative		Positive	Positive	Positive	Positive	
Health curriculum determination	Negative		Positive	Positive		Positive	
Counsels on sex-related problems				Positive	Positive	Positive	
Counsels on human sexuality	Positive					Positive	
Counsels on contraception	Positive		Negative		Positive		
Refers for contraception	Positive		Negative			Positive	Positive
Interventive							
Refers for suspected pregnancy	Positive	Positive	Negative				Positive
Refers for prenatal care	Positive	Positive	Negative				Positive
Refers for abortion	Positive		Negative			Positive	Positive
Counsels on abortion	Positive						

attention, the school nurses seemed to have acted appropriately. However, in view of the estimated numbers of sexually active adolescents in need of, and not receiving, fertility control services—defined as "sex education, health care, and counseling from those most trained to provide them accurately and safely" (*16*)—combined with high adolescent fertility, the actual met need as reported by the school nurses was extremely low. Moreover, although large numbers of student pregnancies would seem to signal a need for preventive efforts within school systems, no relationship was seen in this study between numbers of such pregnancies and school nurse involvement in prevention activities.

The data presented here do not readily indicate the degree to which nurses would like to change this situation. However, school board sanction or censure clearly continues to be reflected in the extent of sex education activities among school nurses. Thus, the following policy implications might be considered:

1. Nurses willing to become involved should be included by State and local planning officials in program planning for statewide sex education.
2. As human resource needs are addressed in overall planning efforts, a clearly delineated role for the school nurse must be included. Tasks must be operationally defined, and clear authorization for action must exist.
3. The question of who should administer school nursing services should be readdressed in relation to professional autonomy.
4. Additional avenues should be explored in an effort to draw on nurses' willingness to become more concerned with current school board guidelines and with administrative support. Examples of this effort might include increasing the visibility of the nurses, establishing resource networks with teaching staff around key student concerns, and holding workshops in which school nurses, teaching staff, and other personnel could plan strategies for meeting students' health needs and problems. This step is particularly important because it would address the need for increased school nurse involvement in the absence of legislative change, and it would help to establish the collegial groundwork that is necessary for successful adaptation to the inclusion of sex education within the curriculum at any grade level.

Further research should be focused on several aspects of the study findings. First, a study of the school nurse's role might include a closer examination of counseling dynamics, as well as student and parental perceptions and expectations of the school nurse. Second, additional examination of students' needs might include their perceptions of their health-related needs and the extent to which those needs are met by school personnel.

Although much research remains to be done, the findings of this study suggest that most school nurses are willing to meet students' needs by teaching, counseling, and referring. The potential for doing so is even greater with the approval of the local school board and the community.

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