School Physicians' Views of Relations With Medical and Nonmedical Agencies

MARSDEN G. WAGNER, M.D., M.S.P.H., MARIAN H. HELLER, B.S., P.H.N., LOWELL S. LEVIN, Ed.D., M.P.H., and CARL S. SHULTZ, M.D.

SCHOOL health services are part of a larger complex of health services including private physicians, hospitals, health departments, and special clinics, such as mental health clinics. Today's school health services are preventive in nature, with emphasis on the identification of health problems, and medical treatment is not permitted. Consequently, a good relationship between school health services and other community health services is essential to maintain a comprehensive and integrated health program for children.

School health services are also part of a larger complex of nonmedical services for children, including educational services (the school itself, special schools), law enforcement services (police, juvenile courts, juvenile halls), welfare services (aid to dependent children, foster homes for children, family service agencies), and other community services such as scouting, the Young Men's Christian Association, the Young Women's Christian Association, and churches. School physicians need to consider all the services of medical and nonmedical agencies to cope with the health problems of the students, and they need to be willing to contact these services.

Medical education traditionally, and for the most part today, focuses on the correct diagnosis and treatment of each patient. The medical and nonmedical communities in which the patient lives receives little emphasis. This attitude also, in general, characterizes the nature of present-day private practice. While the importance of community orientation is perhaps not so obvious for a physician treating an acutely ill adult patient in his office, it is clearly essential for an effective school health service program.

This study was undertaken to identify more clearly factors affecting the relationship of school physicians to the medical and nonmedical segments of the community. It is part of an in-depth study of school physicians in Los Angeles (*1–3*).

Dr. Wagner is assistant professor of pediatrics and public health, University of California School of Medicine and School of Public Health, Los Angeles. Mrs. Heller is research associate in the University of California at Los Angeles School of Public Health. Dr. Levin is associate professor in the department of epidemiology and public health, Yale University School of Medicine. Dr. Shultz is director of the Office of Population and Family Planning, Department of Health, Education, and Welfare.

Study Setting

Los Angeles City Unified School District, the second largest school district in the United States, served a population of 3,324,390 people in 1965. The schools had 618,968 children in kindergarten through 12th grade—364,657 elementary and 254,311 secondary. The school health services branch operated on a 1964–65

budget of $6,178,484, with eight supervising and 115 staff physicians and 11 supervising and 407 staff nurses.

During orientation, new physicians in the district are encouraged to contact family or other physicians in the community if in their judgment this action is advisable. Their role both as communication links to the community and as public relations agents of the school is stressed. The time of most school physicians, however, is filled with required tasks, such as routine physical examinations (*2*). Consequently, contacts with the community, although recommended, are not required. This option of community contact gave us, the investigators, an opportunity to observe variations in physician behavior beyond the behavior observed in required contacts.

Methodology

We hypothesized that specific background characteristics of the physicians as well as certain aspects of school environment are related to their consequent behavior. A series of questions was constructed to test this hypothesis. Participation of all 115 nonsupervisory Los Angeles school physicians was sought, and 109 (95 percent) responded.

Our questionnaire was directed toward the physicians' work at school and in the community served by the school. Each physician described his work in the two schools for which he was responsible. The reference schools were randomly selected, with the qualifications that the physician had been at the school at least one semester and that each physician had been assigned either two elementary schools or two secondary schools. The nurses in these schools were asked the same questions concerning the physicians' school-community relationship to provide an index of reliability for behavior data; 111 school nurses responded.

We also included in the questionnaire a series of questions on the physicians' attitudes toward the local medical and nonmedical communities. Their responses were then related to physician behavior toward these communities.

Characteristics of School Physicians

Of the 109 school physicians responding, 68 were men and 41 were women. Most were in the 35- to 44-year age bracket. Age distribution for both men and women was similar. Ninety-seven physicians were married; 18 did not have children. Eighty-five of the 109 physicians were born in the United States or Canada.

Thirty-two physicians indicated that they were board qualified, and 31 stated that they were board certified. Five physicians were board qualified in more than one specialty. The board certifications included 16 in pediatrics, four in internal medicine, three in obstetrics and gynecology, two in general practice, and six in other specialties.

Of the 109 school physicians, 59 were employed full time (6-hour day, 5-day week) and 50 worked five-sixths or less time in school health services. Twenty of the fifty part-time physicians reported two-sixths time, 13 reported three-sixths time, and 17 reported four-sixths or five-sixths time. Sixteen had less than 1 year of experience in school health services, 12 had less than 2 years, 21 had between 2 and 5 years, 30 had between 5 and 10 years, and 30 physicians had 10 years or more.

Ninety-six physicians supplied data on time spent in "nonpublic health" medical practice (private practice). Of this group, 42 spent no time in outside medical practice, and 42 spent 80 percent or more time in practice outside the school. The remaining 12 physicians reported part-time private practice that occupied less than 80 percent of their time.

Results

Medical community. To determine the behavior of school physicians toward the medical community, we questioned them about contacts with family physicians (table 1). More than half stated that they contacted family physicians less than every third physician session—a physician session is 3 hours in one school. More than half of the nurse respondents thought that physician-community contact occurred with less frequency than every fourth physician session.

When asked how often the school physicians contacted other segments of the medical community, such as hospitals, clinics, optometrists, and dentists, the physician respondents indicated the contact to be nearly identical in frequency to their contact with family physicians. The nurse respondents agreed with this estimate.

When asked what methods of communication were used to make contacts, approximately two-thirds of the school-physician respondents designated the telephone, with letter writing next; one-third of the physicians said letter writing was the most frequent method used, with telephoning next. The nurse respondents, in comparable numbers, gave similar answers. Both physicians and nurses indicated that direct visits were never or almost never made.

The school physicians also were asked whether they considered their contacts to be sufficient (table 2). Seventy percent thought they were sufficient; only nine of the 109 physicians scored them as completely insufficient.

The school physicians were asked to give their opinion on the value they thought the medical community placed on school physicians (table 2). In general, the school physicians thought the medical community considered them to be moderately valuable. Only 11 physicians thought the medical community considered them to be of little or no value. Four physicians indicated that the medical community considered them to be of great value.

They also were asked to judge the medical community's understanding of school health services (table 2). The responses ranged from "very poor" to "excellent," but, in general, the school physicians judged the medical community's understanding of these services to be midway between these extremes.

The school physicians then were asked to estimate the medical community's understanding of the health problems of school children (table 2). Here again most school physicians thought the medical community's understanding was more adequate than inadequate. Very few thought it was "very adequate" or "very inadequate."

Another question required the school physicians to rate the importance of the medical community in the school health program (table 2). Here there was a significant shift in responses; the majority thought the medical community was unimportant in the program.

Nonmedical community. The school physicians were asked to indicate the frequency with which they contacted nonmedical community agencies. They estimated a definitely decreased frequency as compared to similar contact with the medical community (table 1). More than half (59 percent) of the physicians indicated their contact with the nonmedical community to be less than every fourth physician session, and 85 percent of the school-nurse respondents indicated the same frequency of contact.

The physician and nurse respondents were asked to indicate the person who usually contacted the nonmedical community agencies. Of 106 school physicians who answered this question, 74 indicated the nurse, 14 indicated nonmedical school personnel, and nine indicated a combination of both. Only nine school physicians included themselves as one of the persons making contacts. Significantly, only three school nurses working with these school physicians included the school physicians; 108 of the

Table 1. Estimated frequency of contacts between school physicians and medical and nonmedical communities

Contact frequency	Family physician		Medical community [1]		Nonmedical community [2]	
	Physician	Nurse	Physician	Nurse	Physician	Nurse
Every physician session [3]	3	4	7	4	2	0
Every other physician session	15	7	16	3	9	3
Every third physician session	21	13	14	13	12	6
Every fourth physician session	19	15	20	19	21	8
Less than every fourth physician session	49	72	50	72	63	94
Total	[4] 107	111	[4] 107	111	[4] 107	111

[1] Other than family physicians, including hospitals, clinics, optometrists, dentists.

[2] Including law enforcement, welfare services, educational services, youth groups, churches.

[3] 3 hours in 1 school.

[4] 2 physician respondents did not answer this question.

Table 2. Opinion of 109 school physicians on relationships between medical community and school health services

Opinion	Number of physicians						
	Graduated rating						No opinion given [1]
	1	2	3	4	5	6	
Physician contact with medical community:							
Range of ratings	Insufficient ←					→ Very sufficient	
Number of physicians	9	12	12	26	32	18	----------
Importance of medical community in school health program:							
Range of ratings	Very unimportant ←					→ Very important	
Number of physicians	13	25	20	24	12	8	7
Value of medical communitys' rating of school physician:							
Range of ratings	Of no value ←					→ Extremely valuable	
Number of physicians	2	9	25	36	23	4	10
Medical community's understanding of school health services:							
Range of ratings	Very poor ←					→ Excellent	
Number of physicians	7	13	28	31	20	3	7
Medical community's understanding of health problems of school children:							
Range of ratings	Inadequate ←					→ Very adequate	
Number of physicians	9	8	22	31	21	8	10

[1] A few physicians failed to respond to 4 of the 5 questions.

111 nurse respondents indicated contact with nonmedical community agencies either by themselves or nonmedical school personnel or both.

Seventy percent of the school physicians expressed the opinion that contact frequency with the nonmedical community was sufficient—the same percentage that rated contact with the medical community as sufficient. Two-thirds thought these agencies were more helpful than not; 38 physicians indicated that they were quite helpful, 17 said they were quite unhelpful, 44 indicated an in-between response, and 10 failed to respond to this question.

Correlations between attitude and behavior. Analysis of the responses to our questions showed significant correlations among higher than average contact with the private physician, higher than average contact with the rest of the medical community, and higher than average contact with the nonmedical community ($P<0.01$). Significant correlation existed between the school physicians' opinion that the medical community placed a high value on him and the opinion that the medical community's understanding of school health services was good ($P<0.01$). Both attitudes, in turn, correlated with the opinion that the role of the medical community in the school health program was important and the opinion that the nonmedical community agencies were helpful in the management of school health problems ($P<0.01$).

Further analysis revealed that the school physicians who had relatively frequent contacts with family physicians and with community agencies also tended to have this set of attitudes ($P<0.05$). The background characteristics of the physicians who made these community contacts more frequently showed that, in general, they were not presently participating in private medical practice and did not prefer private practice if the opportunity arose but preferred practice in public health programs ($P<0.05$).

Discussion

Apparently there is a continuum of attitudes among school physicians regarding community relationships. At one end is a large group of physicians mainly engaging in private practice and having little contact with either the medical or nonmedical communities during their part-time school health work. This group comes to the school health office expecting to examine student patients and to report the results to parents or a nurse—the procedure they have fol-

lowed in private practice and in medical school training. The few contacts they have with the community are probably no more than they might have in their private offices or during their years of training. Thus they carry their concept of independence and separateness as a physician not only into the role of school physician but also into their concept of the school health program, seeing it as a rather detached and unrelated activity. Either they do not see medical care for school children as a cooperative and coordinated affair or they do not think that they, as school physicians, are responsible for the coordination of services.

At the other end of the continuum is another group of school physicians who have more contact with the total community. This group apparently thinks that contact with the community is important and that the community, in turn, is helpful in the management of school health problems. This group considers the role of the school physician to be important and apparently thinks that the school health program is an integral part of the medical community.

The school physician apparently brings with him a set of attitudes and previous behaviors toward medical and nonmedical segments of the community that strongly influences his subsequent behavior as a school physician toward the community. The private-practice-oriented physician is not oriented to the community when he works as a school physician. Nor does he conduct a public-health-oriented service including community contact if such behavior is optional. Perhaps the use of private-practice-oriented physicians in other public health services would also fail to produce essential public health practices, such as coordination of services within a community.

Summary

One hundred nine school physicians in a large urban school health service answered a questionnaire that included items concerning their school-community relationships. The school nurses were asked the same questions to provide an index for reliability of data.

More than half of the physicians stated that they contacted family physicians and other members of the medical community less than every third physician session. A physician session is a 3-hour half-day in school. The physicians stated that they contacted the nonmedical community less than every fourth physician session. School nurse responses were similar in all instances.

Correlations between these behaviors and a number of attitudinal questions showed significant correlations among higher than average contacts with all elements of the community and several opinions suggesting that medical and nonmedical communities were important in the school health programs. This set of behaviors and attitudes in turn correlated with that for physicians not presently in private medical practice and not preferring private practice but practice in public health programs. Apparently there is a continuum among school physicians regarding their relationships to the community. At one end is a group of physicians having very little contact with the community and largely engaged in private practice when not working as a school physician. At the other end is a group of physicians that has more contact with the community and thinks such contact is important and helpful and prefers working in the public health setting.

The school physician brings with him a set of attitudes and behaviors toward the community that strongly influences his behavior toward the community as a school physician. With regard to school health services, a private-practice-oriented physician is not oriented toward the community and does not conduct a public-health-oriented service including community contact if such behavior is optional.

REFERENCES

(1) Wagner, M. G., Levin, L. S., and Heller, M.: The school physician: A study of satisfaction with his role. Pediatrics 40: 1009–1018, December 1967.

(2) Wagner, M. G., Shultz, C. S., and Heller, M.: A study of school physician behavior. Amer J Public Health 58: 517–527, March 1968.

(3) Levin, L. S., Wagner, M. G., and Heller, M.: Health problems of elementary school children as perceived by school physicians, nurses, and principals. Elementary School J 69:44–51, October 1968.