Family Physicians' Activities in Nursing Homes: The Minnesota Experience

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The Minnesota Academy of Family Physicians surveyed its members to determine their nursing home activities. The response rate was 66 percent. Eighty-three percent of members who responded had made at least one nursing home visit in the previous month. Nearly one half (48.1 percent) of physicians not currently caring for nursing home patients would continue to treat their own patient if that person were admitted to a nursing home. As the number of years in medical practice increased, statistically significant increases occurred in (1) the percentage of a practice composed of geriatric patients, (2) the number of visits made to nursing home patients, and (3) the number of hours and days spent in nursing homes. Physicians caring for nursing home patients (1) live in smaller communities, (2) spend more days each week in the office, (3) are not residency trained, (4) are board certified, and (5) have a greater percentage of patients in the geriatric age group. Physician nonparticipation in nursing homes was due to (1) too few nursing home patients in the practice, (2) inconvenience, and (3) excessive paperwork.

The next several decades will bring about increasing awareness of the health care needs of the elderly as their numbers rapidly increase. According to the US Census Bureau, in 1980 25.5 million people in the United States were aged 65 years or older. This figure represents 11.3 percent of the nation's total population.[1] Demographers estimate that this percentage will increase to 12.2 percent by 1990 and to 18.3 percent by the year 2030, with the largest increases being in the group aged 85 years and older.[2]

In Minnesota, 500,000 people are aged 65 years or older. This segment of the population is growing twice as fast as the overall population. Of this number, 44,500 (8.4 percent) live in nursing homes, compared with 5 percent nationally. At the present rate of increase, the nursing home population in Minnesota will increase to 54,400 in 1990 and 66,000 by the year 2000.[3]

The Aging Committee of the Minnesota Academy of Family Physicians (MAFP) undertook a study to determine members' activities in Minnesota nursing homes. Specifically, the purpose of the study was (1) to determine the number of family physicians participating in the care of nursing home patients at nursing homes, (2) to identify reasons for nonparticipation in nursing home care, (3) to identify differences between physicians who do and those who do not see nursing home patients, and (4) to determine changes that occur as a physician ages.

METHODS

A total of 1,123 active members of the MAFP were mailed a questionnaire in October 1984. The questionnaire asked for information about demographics, medical education and practice activities, participation in care of nursing home patients and in nursing home administration, and reasons for choosing not to participate in the care of nursing home patients.

A total of 744 questionnaires were returned after two mailings for a response rate of 66 percent: a 40 percent response to the first mailing and an additional 26 percent response to the second mailing. Fifteen questionnaires were received after the closing date of the study and have not been included in the statistical analysis.

Data analysis was accomplished with the *Statistical Package for the Social Sciences* subprogram "Frequencies," subprogram "ANOVA," and subprogram "Dis-

Submitted, revised, January 22, 1987.

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TABLE 1. REASONS FOR PHYSICIAN NONPARTICIPATION IN CARE OF NURSING HOME PATIENTS

Reason	Very or Somewhat Important No. (%)	Not Important No. (%)
Too few patients	64 (77.1)	19 (22.9)
Inconvenience	51 (66.2)	26 (33.8)
Excessive paperwork	49 (62.8)	29 (37.2)
Low reimbursement rates	37 (48.1)	40 (51.9)
Own medical staff	33 (45.8)	39 (54.2)
No nursing home near office	30 (43.4)	39 (56.6)
Delays in payments	26 (35.1)	48 (64.9)
Dislike of clientele	13 (18.0)	59 (82.0)

criminant."[4] Statistical tests included analysis of variance and discriminant analysis.

RESULTS

The survey showed that of the 744 physician responders included in the analysis, 615 (82.7 percent) of the active members of the MAFP participate in the care of nursing home patients at nursing homes. The mean time spent during the previous month was 2.0 days. Patient visits averaged 15.4 monthly with 14.1 minutes per patient. Of the responding physicians, 84.8 percent were in group practice, 73.0 percent lived in communities of fewer than 100,000 people, and 65.9 percent graduated from a Minnesota medical school. In addition, 47.6 percent were residency trained in family practice, and 88.9 percent were board certified. The average number of years in practice was 17.9. The mean percentage of geriatric patients in a physician's practice was 24.4 percent with a mean percentage of nursing home patients at 4.7 percent. Twenty-two percent of responding physicians served as medical director of a nursing home.

Physician Nonparticipation in Nursing Homes

The study attempted to determine factors that affected physicians' decisions not to make nursing home visits (Table 1). The possible reasons included (1) low reimbursement rates, (2) excessive paperwork required, (3) delays in receiving payments, (4) dislike of clientele, (5) inconvenience (required too much time), (6) no nursing home close to office, (7) too few patients in nursing home practice, and (8) a nursing home with its own medical staff. An "other" category was included as well as an area for additional comments.

The major reasons for nonparticipation were (1) too few nursing home patients in practice, (2) inconvenience, and (3) excessive paperwork. Reasons that were less important in physicians' decisions not to provide nursing home visits included dislike of clientele and delays in payment.

Physician Practice Differences

Discriminant analysis testing was conducted to determine the prediction validity of eight variables for differences between physicians who do make nursing home visits and physicians who do not make nursing home visits. The discriminant analysis was done in a stepwise fashion, meaning that variables were entered into the discrimination function cumulatively. The eight variables included in the analysis were (1) percentage of geriatric patients in the practice, (2) community size, (3) days spent each week in the office, (4) residency training in family practice, (5) percentage of patients with dual Medicare–Medicaid coverage, (6) board certification in family practice, (7) number of physicians in practice, and (8) location of medical school attended. Six of these variables significantly accounted for variances in group membership. The contributing order of these from greatest to least was (1) percentage of geriatric patients in the practice, (2) community size, (3) days spent each week in the office, (4) residency training in family practice, (5) percentage of patients with dual Medicare–Medicaid coverage, and (6) board certification in family practice.

Physicians more likely to visit nursing homes were those who had a greater percentage of geriatric patients, were from smaller communities, spent more days each week in the office, were not residency trained, and were board certified. The variance accounted for by all six significant predictors together is 12 percent ($P < .0001$). Thus, the demographic variables distinguishing physicians predicted a small, but statistically significant, variance in nursing home visits.

Effect of Physician Age

The data were next analyzed to determine the relationship of the years in practice to seven different practice variables, including (1) days spent each month seeing nursing home patients, (2) hours spent each month seeing nursing home patients, (3) percentage of geriatric patients, (4) percentage of nursing home patients, (5) number of nursing home patient visits, (6) minutes spent each nursing home patient visit, and (7) number of house calls each month. Seven one-way analysis-of-variance runs were performed, demonstrating that the number of years in practice predicts differences in five of the seven dependent variables at a significance level of $P < .05$. As the number of years a

physician has been in practice increases, the percentage of geriatric patients increases, the number of days and hours spent each month seeing nursing home patients increases, the number of nursing home visits increases, and the number of house calls made increases.

DISCUSSION

Few studies are reported in the literature that deal with physician involvement in and their attitudes toward nursing homes and nursing home patients. Miller and colleagues[5,6] have concluded that there exists generalized medical disinterest, malaise, and unpreparedness in the care of the chronically ill aged in the nursing home setting. Mitchell[7] stated that "many physicians have abdicated responsibility for nursing home patients, seriously jeopardizing the quality of care." Problems with these studies have been inclusion of specialties other than primary care, small numbers, and low response rate.

The delivery of health care to chronically ill aged persons is most likely to be and should most appropriately be carried out by physicians in a primary care field—general practice, family practice, or internal medicine. Interest in geriatrics has increased in recent years as witnessed by numerous conferences, research efforts, and journals in the field. Geriatrics is now a part of the curriculum of most medical schools as well as family practice and internal medicine residency programs. There exist many fellowship programs devoted solely to geriatric medicine.

The present study deals with a single group of physicians—general and family physicians—who are members of the Minnesota Academy of Family Physicians. The questionnaire was based on physicians' visits during the previous month. This approach was chosen because of the federal Medicaid program standards that require physicians to visit patients in skilled nursing facilities at least once every 30 days. Patients in intermediate care facilities must, in general, have their care plan recertified every 60 days and must be visited at least once every 90 days. The response rate of 66 percent was much higher than expected for a physician questionnaire and significantly greater than the 20 percent and 28 percent reported by previous researchers.[6,8]

The participation of 82.7 percent of physicians in nursing home care was higher than expected and twice the 41.4 percent of Michigan physicians surveyed in 1981.[8] Of the 129 (17.3 percent) physicians who made no nursing home visits the previous month, 40 (31 percent) had seen nursing home patients at other sites, including the office (72.5 percent), hospital emergency room (15.0 percent), hospital outpatient department (2.5 percent), or some combination of the above. Transportation for these visits is provided by family, nursing homes, or life support ambulances, which increases the total cost of care. The reasons given for seeing nursing home patients at other sites includes physician's ease, additional support staff for preparing the patient for examination, better examination equipment, and ready availability of laboratory and x-ray facilities. If care provided at sites other than the nursing home is included, then 655 (88 percent) family physicians in Minnesota care for nursing home patients.

The reasons for not providing care to nursing home patients were not disinterest or dislike of clientele, but rather having too few nursing home patients in practice and factors of inconvenience. Many interesting comments for not seeing nursing home patients were submitted in the "other" category. Several physicians stated that they had previously cared for nursing home patients, but the economics of today's health care market had forced them to discontinue this portion of their practice and seek higher revenue-generating areas. Some practices have designated one or a small number of physicians to care for all nursing home patients in the practice. Some practices are restricting nursing home visits to a limited number of homes, so that if a patient must be admitted elsewhere, the practice would refer the patient to another physician. Several physicians were dismayed by the low reimbursement rates and the considerable travel, telephoning, and paperwork generated by this portion of their practice. There were also several comments questioning the need for regulations regarding frequency of visits and the need for periodic complete physical examinations, which some felt were not cost effective and could be improved by less-stringent requirements. No mention was made of other possibilities such as lack of training in geriatrics.

When physicians not providing care to nursing home patients were asked what they would do if one of their regular patients were admitted to a nursing home, 48.1 percent of physicians not now making nursing home visits would make exception and continue to treat. The number of physicians willing to provide continuing care after a patient's entrance into a nursing home is nearly twice the 25.1 percent of responding physicians who would continue to treat as determined by a Blue Cross/Blue Shield of Michigan survey. In their study, 65.4 percent of physicians would refer to another physician a patient needing admission to a nursing home. The physicians who would make exception and continue to treat may be those who at present have no nursing home patients in their practice and may have been in practice for shorter periods of time.

Many factors interact to determine whether a physician will or will not make nursing home visits. This study looked at demographic variables only and found that size of geriatric population in the practice, community size, time spent in the office, residency training in family practice, and board certification in family practice contributed

to just 12 percent of the variance in those physicians who do and those who do not make nursing home visits. This number is statistically significant ($P < .0001$), but there are many other factors that can account for this difference that were not determined in this study.

This study found that fewer visits were made to nursing homes by physicians who had fewer geriatric patients, who lived in larger communities, who worked fewer office hours each week, who were residency trained in family practice, and who were not board certified in family practice. Most physicians with few geriatric patients have few nursing home patients. Because of the travel time for every nursing home patient and the already low reimbursement rates, this area of practice is time-consuming and generates little profit. Physicians living in larger communities encounter several problems. Their patients have a larger number of nursing homes to choose from and may become scattered in different locations, making patient visits at all these sites nearly impossible. Some nursing homes, particularly in larger communities, may have their own medical staff, and continuing care by a primary physician outside the medical staff may not be an option. Furthermore, within larger communities, there are differing proportions of family physicians within the medical population, and more patients may have internists at the stage in their lives when nursing home entry may be necessary.

Physicians seeing nursing home patients were less likely to have completed a family practice residency. This finding is almost certainly due to age differences. The physicians who did not complete residency training are, in general, older and have been in practice longer. As other parts of the study show, older physicians have increased numbers of geriatric patients.

As a physician ages, not only does the percentage of geriatric patients increase, but the number of patient visits in nursing homes and the number of days and hours each month alloted to seeing nursing home patients increase. The actual time spent for each patient visit decreases, which may be not only related to familiarity with the patient's past history, medications, and family, but also to familiarity with the nursing home operations and staff.

Of physicians participating in nursing home care, 56.6 percent were involved with a nursing home either as a medical director, a member of an organized medical staff, or a member of a utilization review committee. Twenty-two percent of physicians served solely as a medical director of a nursing home. The remaining physicians who were formally affiliated with a nursing home served as a medical director and participated in one or both of the other functions mentioned.

CONCLUSIONS

Because old people are constituting an increasing segment of the population, the number of nursing home patients will rise and the need for geriatric medical care will grow. Furthermore, the knowledge base required to treat multiple chronic diseases will continue to expand. The increasing demand for medical care will be even more evident in Minnesota, where the longevity of the population averages 76.15 years, second only to Hawaii, and the nursing home population can be expected to increase from 44,553 in 1980 to 66,000 in the year 2000.[3]

Family physicians in Minnesota have a high percentage of participation in care of nursing home patients. As a specialty, family practice is well equipped to provide care to this growing segment of the population. Eighty-three percent of Minnesota family physicians provide care to patients in nursing homes. Nearly one half (48.1 percent) of physicians in Minnesota not caring for nursing home patients at present would do so if a patient cared for by them needed admission. Over one half (56.6 percent) are involved in administrative roles in nursing homes.

Many changes are occurring in the delivery of health care that will affect the future of care of the geriatric patient population. The impact of diagnosis-related groups, prepaid senior health care plans, and the proposed voucher system for Medicare must be monitored closely for the effects on patients and on physicians' practices.

Acknowledgments

This project has been funded in part by the Minnesota Academy of Family Physicians, which provided the assistance of its staff. Janet Mitchell, PhD, provided permission to use and modify the physician questionnaire.

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