

# Gender-Specific Differences in Family Practice Graduates

Karen S. Ogle, MD, Rebecca C. Henry, PhD, Kate Durda, MA, and Judith D. Zivick  
East Lansing, Michigan

*In 1979 the American Academy of Family Physicians (AAFP) conducted a study of family practice residency graduates to develop a database of personal and professional characteristics. Questionnaires were sent to 4,295 physicians, and results were based on a total of 3,021 respondents. Female physicians made up 7.1 percent of this sample; however, analysis of the data at that time did not distinguish between men and women. The current study is a reanalysis of the data collected by the AAFP to include comparisons of male and female respondents and to determine whether gender differences that have been reported in the literature continue to persist. Results indicate that gender differences did persist in four of six areas studied; however, these differences were not so large as described in earlier studies. Areas in which differences were found are demographics, family structure, practice arrangements, and salary. Notable differences were not found in the areas of career choice development and professional activities. Now that the number of female physicians approaches 20 percent of all new family physicians, further data collection efforts are needed to determine their impact on family practice as a specialty.*

As a new specialty emerges and develops within the practice of medicine, it is useful to document its growth through periodic examinations of the individuals who make up the specialty. In 1979, one decade after family practice became a recognized specialty, the American Academy of Family Physicians (AAFP) conducted the first such examination of that specialty.<sup>1</sup> Though one of the highlights of this study was the growing number of women entering family medicine, the final report did not include separate data on women.

The number of women in family practice has continued to increase in the years since the 1979 survey. In 1985, 9.7 percent of all active AAFP members were female. Further, the number of female family practice residents increased from 7.2 percent of all residents in 1979 to 25.4 percent in 1985, indicating, as Geyman predicted in 1980, that the number of women in family medicine would continue to increase.<sup>2</sup>

Many have speculated on the significance of this change in composition of the specialty on the development of family practice and the future of health care services. The purpose of this study was to reanalyze the data on residency-trained physicians collected by the AAFP to include comparisons of men and women and to determine whether gender differences that had been cited in previous studies continue to persist in the present data.

## METHODS

The goal of the AAFP was to develop a database of personal and professional characteristics of family practice residency graduates. In the summer of 1979 questionnaires were sent to 4,295 physicians who graduated from family practice residency programs between 1970 and 1978 and who were diplomates of the American Board of Family Practice. By January 1980, 3,302 physicians had returned the questionnaire—a response rate of approximately 77 percent. There were 281 respondents whose practice activities were sufficiently different from all others that the researchers chose to exclude them from the study. Thus, their

*Submitted, revised, December 20, 1985.*

*From the Department of Family Practice and the Office of Medical Education Research and Development, Michigan State University, East Lansing, Michigan. Requests for reprints should be addressed to Dr. Karen S. Ogle, Department of Family Practice, B-100 Clinical Center, Michigan State University, East Lansing, MI 48824.*



TABLE 1. SPOUSE EMPLOYMENT IN FAMILIES WITH AND WITHOUT CHILDREN

	Wives of Male Physicians %		Husbands of Female Physicians %	
	Without Children	With Children	Without Children	With Children
Not employed outside the home	28.1	72.1	4.7	6.0
Employed full-time	44.8	7.5	93.7	87.7
Employed part-time	27.1	20.4	1.6	6.3

analysis was based on the remaining 3,021 physician respondents involved in full-time patient care in family practice. Women made up 7.1 percent (216) of this sample. The present study represents a reanalysis of the original data that was factored into male and female responses.

## RESULTS

The variables included in the reanalysis of data were demographic characteristics, family characteristics, practice arrangements, salary, education and career choice, and professional activities.

### DEMOGRAPHIC CHARACTERISTICS

This analysis showed little difference in the mean age of male and female graduates. Other demographic characteristics, however, presented some differences between men and women. Almost one fifth of the women belonged to racial or ethnic minority groups, as compared with only 6.1 percent of the men.

More of the men were married than were the women graduates (89.5 vs 61.2 percent). While less than 6 percent of the men reported never having married, over 30 percent of the women never had. The divorce rate was twice as high for women (8.4 vs 4.4 percent for men).

### FAMILY CHARACTERISTICS

Marked differences in family characteristics were found between male and female married physicians. Seventy-four percent of the husbands of female physicians had earned graduate degrees compared with less than 30 percent of the wives of male physicians.

For male physicians, two thirds of the spouses were not employed outside the home, and only 13 percent were employed full-time. In contrast, for female phy-

sicians, 98.9 percent of the spouses were employed, nearly all full-time. Interestingly, female physicians were 20 times more likely to marry other physicians than were male physicians. In addition, over 80 percent of the male physicians had children at home, but only one half the female physicians did. The smaller percentage of women who did have children had fewer than their male counterparts.

In the families with children, the difference in spouse employment was even more pronounced (Table 1). Wives of male physicians were less likely to be working outside the home if the family included children, and the likelihood decreased with each additional child. In addition, wives who had children and were employed were more likely to work outside the home only part-time. These trends were not present in the families of female physicians: husbands were highly likely to be employed full-time regardless of whether they had children.

The following were also collected on three spouse-related variables for choice of practice location: employment opportunities for spouse, location preference of spouse, and education opportunities for spouse. Only one variable showed a marked difference between the responses of married male and female physicians: employment opportunities for spouse. Considerably more women than men ranked this variable as being important in selecting a practice location (50.6 vs 11.4 percent). Since only one third of the male physicians had wives employed outside the home, as compared with nearly all the husbands of female physicians, this finding should come as no surprise.

Location preference of spouse was an important consideration for both male and female physicians. Educational opportunities for spouse was ranked as not important by a majority of each.

### PRACTICE ARRANGEMENTS

The percentage of male and female physicians in solo practice was about the same (approximately 25 percent); however, differences between male and female physicians in other practice arrangements were found.

Men were three times more likely than women to be in partnerships and 1½ times more likely to be in family practice groups. Women were twice as likely as men to practice in multispecialty groups and to specify "not applicable."

### SALARY

Salary (net income before taxes) differed substantially between the sexes. Women were overrepresented in the lower income brackets and underrepresented in the upper income brackets. Women were twice as likely as men to report earnings less than \$30,000 per year (40.1 vs 20.1 percent). On the other hand, men were four times more likely than women to report earnings over



\$60,000 per year (17.2 vs 3.9 percent). When income was examined by practice arrangement, the same pattern of income differential held true. In every practice arrangement, women dominated the lower income brackets while men dominated the higher income brackets.

**EDUCATION AND CAREER CHOICE**

Data collected on career choice showed no differences between the men and women, either in the timing of the decision to enter family practice or whether and when they took a preceptorship with a family physician. Their medical educations were also very similar. Very few of the male physicians (1.8 percent) and none of the female physicians held a Doctor of Osteopathy degree. The type and extent of residency training was comparable, the only difference being that women had completed their residency slightly more recently. Data on membership in the American Academy of Family Physicians were not available.

**PROFESSIONAL ACTIVITIES**

The original AAFP survey examined a number of professional and practice characteristics of which only some were available for reanalysis. Table 2 presents the mean percentage of reported time spent by female and male physicians engaged in four types of activities: direct patient care, teaching, administration, and research. There was little difference between the male and female physicians in mean percentage of time spent in each of these categories.

Direct patient care accounted for the majority of the family physicians' time. Only slight differences were found in the percentage of time spent by male and female physicians. In addition, a breakdown of direct patient care activities showed little difference in the percentage of men and women providing ambulatory vs inpatient care, as well as in the percentage providing obstetrical care as part of their practice.

Teaching activities accounted for a much smaller percentage of time for both male and female physicians. There was also no difference between the two groups in the percentage who serve as preceptors, medical school faculty, or family practice residency faculty. Administrative and research activities also accounted for a very small percentage of the family physicians' time, and there was little difference between men and women in time spent on these activities.

Overall, women reported spending slightly less professional time in direct patient care and slightly more in teaching, administration, and research.

**DISCUSSION**

Results of this reanalysis indicate that gender differ-

**TABLE 2. PROFESSIONAL ACTIVITIES OF FAMILY PRACTICE RESIDENCY GRADUATES BY SEX**

	Mean Percentage of Reported Time Spent	
	Male	Female
Direct patient care	87.4	81.7
Ambulatory care	82.4	86.4
Inpatient care	16.0	12.2
Other	1.6	1.4
Routine obstetric care provided	66.6	59.4
Complicated obstetric care provided	40.1	30.5
Cesarean section performed	14.9	10.0
Teaching medical students or residents	7.5	10.4
Administration	4.4	6.3
Research	0.8	1.5

ences were found in four areas: demographics, family characteristics, practice arrangements, and salary. Areas in which gender differences were not found are development of career choice and professional activities.

The marked differences found in demographic and family characteristics parallel other findings in the literature indicating women physicians were more likely to have never married or to have been divorced, to have spouses who are employed full-time, to be married to other professionals including physicians, and to have fewer children and at a later age.<sup>3-5</sup> The differences in married physicians' responses to the variable "employment opportunities for spouse" were also noted by Cartwright,<sup>6</sup> who reported women physicians are often married to other physicians and other professionals who have limited mobility because of the demands of their own careers.

Data on practice arrangements revealed both similarities and differences between male and female physicians. This analysis showed a similar percentage of both groups were in solo practice. Bauder-Nishita<sup>7</sup> reported that men were more likely to be in solo and partnership practices, women were more likely to practice in hospitals and institutional settings, and both men and women were equally likely to be in group practice. Heins et al<sup>8</sup> found that a similar number of men and women were in solo practice, while considerably fewer women than men were in partnerships.

Analysis of practice arrangements also showed that men were three times more likely than women to be in a two-person partnership arrangement, and approximately one half of both men and women were in group practice (either a family practice group or a multispecialty group). It is difficult to draw conclusions about these findings, since more than twice as many women



specified "not applicable" for this category. When these "not applicable" responses were randomly sampled, it was found that most respondents were actually practicing in institutional salaried positions (student health physicians, full-time faculty, outpatient clinic staff). The questionnaire did not request an explanation to the "not applicable" response, and many of these responses could have fallen into the other categories if interpreted differently. A more precise instrument should be used to draw valid conclusions as to why the two groups differed so greatly.

Substantial differences in salary for male and female physicians were obvious. Explanations often offered for income differentials included hours worked per week and per year, years in practice, type of practice arrangement selected, and technical procedures and surgery performed. To the extent that data were available on these factors in this study (practice arrangements, obstetrics, inpatient care, years since residency), they did not explain the income differences between the two groups. Since precise information regarding the hours per week and weeks per year worked were not available, this variable cannot be ruled out as an explanation. However, the possibility that income differences resulted from sex discrimination cannot be excluded. Wilson<sup>5</sup> reported that, per hour of practice, net income for men was 20 percent higher than net income for women. Bobula<sup>9</sup> examined the income differences between the sexes in medicine as a whole with a more complete database, and likewise was unable to account fully for the income difference. He did find differences in income to have declined between 1972 and 1977, however.

This analysis showed little difference between male and female physicians on education and career choice. This finding supports another limited study that showed men and women equally likely to make family practice their first choice of specialty. As Geyman discussed,<sup>2</sup> striking changes have occurred in recent years in choice of specialties by women physicians. Women are rapidly entering specialties that previously were nearly all male dominated, including family practice.

In addition, little difference was found in time reported spent on professional activities. This finding parallels findings by Carpenter<sup>10</sup> and Bauder-Nishita,<sup>7</sup> who reported only a slight difference in time spent in various professional activities.

## SUMMARY

This study identified several areas in which gender differences continue to exist. The data used for this reanalysis, however, were from physicians who graduated from family practice residency programs between 1970 and 1978. Female physicians accounted for 7.1 percent of this sample.

In the last several years the number of new female family physicians has increased dramatically and now accounts for almost 20 percent of all new family physicians. It is necessary, therefore, to continue monitoring the field to determine whether these gender differences are persisting or to determine what new trends, if any, are emerging between male and female family physicians.

## Acknowledgments

The American Academy of Family Physicians provided the data used in this study, and Gordon Schmittling, MS, provided technical assistance.

## References

1. Black RR II, Schmittling G, Stern TL: Characteristics and practice patterns of family practice residency graduates in the United States. *J Fam Pract* 1980; 11:767-778
2. Geyman JP: Increasing number of women in family practice: An overdue trend. *J Fam Pract* 1980; 10:207-208
3. Heins M, Hendricks J, Martindale L, et al: Attitudes of women and men physicians. *Am J Public Health* 1979; 69:1132-1139
4. Powers L, Parmelle R, Wiesenfelder H: Practice patterns of women and men physicians. *J Med Educ* 1969; 44:481-491
5. Wilson MP: The status of women in medicine: Background data. *JAMWA* 1981; 36:62-79
6. Cartwright LK: Continuity and noncontinuity in the careers of a sample of young women physicians. *JAMWA* 1977; 32:316-321
7. Bauder-Nishita J: Gender specific differentials of medical practice in California. *Women Health* 1981; 5(3):5-15
8. Heins M, Smock S, Martindale L: Current status of women physicians. *Int J Women's Studies* 1978; 1:297-305
9. Bobula JD: Work patterns, practice characteristics, and income of male and female physicians. *J Med Educ* 1980; 55:826-833
10. Carpenter ES: Women in male-dominated health professions. *Int J Health Serv* 1977; 7:191-207