Family Practice Obstetrics in Michigan

Factors Affecting Physician Participation

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The purpose of this study was to describe the characteristics of family physicians in Michigan who practice obstetrics and to identify important factors relating to a decision to discontinue obstetric practice. Questionnaires were mailed to all members of the Michigan Academy of Family Physicians (MAFP) who were listed as currently practicing obstetrics. Two hundred ninety-one questionnaires from the 357 mailed questionnaires were returned for a response rate of 81.5 percent. Two hundred thirty-five of the 291 respondents (80.8 percent) were practicing obstetrics in 1986. Twenty-two of the 235 physicians (9.4 percent) planned on discontinuing obstetric practice by early 1987. Reasons for discontinuing obstetrics included malpractice liability risk and cost and interference with lifestyle. Physicians who had recently discontinued or were planning to discontinue obstetric practice were significantly less likely than physicians practicing obstetrics to have a residency program affiliation (33 percent vs 58 percent). While malpractice concerns were found to be an important factor in deciding to discontinue the practice of obstetrics, practice arrangements and educational affiliations were other important factors that may be more amenable to change through educational or administrative interventions.

The practice of obstetrics by family physicians is an issue of current concern. Specific areas of concern include appropriate prenatal risk assessment,[1,2] the type and length of obstetric training for family physicians,[3–5] assessment and predictions of outcomes of obstetric care by obstetricians and family physicians,[6–10] and factors that cause increasing numbers of family physicians to discontinue the practice of obstetrics.[11,12] Of particular interest are two issues that may be related: (1) that the provision of obstetric care by family physicians is particularly related to the presence of a cooperative and facilitative relationship with other family physicians or obstetricians, particularly in a training environment, and (2) that factors other than malpractice liability and insurance costs contribute to a decision by family physicians to discontinue the practice of obstetrics.

Since some studies suggest that the outcomes for low-risk patients managed in smaller hospitals primarily staffed by family physicians are equal to or better than the outcomes of similar patients managed in referral settings,[13,14] the continued practice of obstetrics by family physicians makes an important contribution to the medical care delivery system. While the malpractice liability crisis is one force decreasing family physicians' participation in the practice of obstetrics, solutions seem unclear, complex, and subject to state and regional idiosyncrasies. Understanding other factors that may be more amenable to alteration or improvement might suggest educational or organizational changes that would encourage the continued availability of family practice obstetric care.

The purpose of this study was to describe the characteristics of family physicians in Michigan who practice obstetrics as a part of family medicine and to identify important factors relating to a decision to discontinue obstetric practice.

METHODS

The population selected for this study was obtained from a 1986 reference file containing information on all active members of the Michigan Academy of Family Physicians

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(MAFP) who completed the MAFP mailed membership survey. Three-hundred fifty-seven members reported practicing obstetrics. While the percentage of active members responding to this survey is not known, information from the American Academy of Family Physicians (AAFP) suggests that this file contains information on approximately 80 percent of the active members in Michigan. The surveyed population for this study therefore represents 37.5 percent of all active members of the MAFP (357/951) and 85 percent of members who are listed with the AAFP as practicing obstetrics (375/440). A self-administered questionnaire was mailed in October 1986 to those members who were listed as currently practicing obstetrics. The questionnaire requested information on the following items: (1) practice organization and content of obstetric care including the number of patients served; (2) malpractice insurance coverage and insurance costs; (3) current plans to continue providing obstetric care or, if planning to discontinue providing care, reasons for discontinuing the practice of obstetrics; (4) privileges held related to obstetrics and any privileges in relation to obstetrics that were denied; and (5) present affiliation with a medical school or family practice residency program.

The survey was conducted in two waves; the initial mailing was followed by a second complete mailing of the questionnaire to all nonrespondents after three weeks. Respondents who were no longer participating in obstetrics were asked to return the questionnaire blank.

Univariate analysis of variance for continuous variables and chi-square tests for categorical variables were employed in analyzing responses by age, practice location, number of obstetric patients under care, current affiliation with an academic institution, and current plans to continue obstetric practice. Multiple regression analysis was conducted to investigate the contribution of these variables on plans to continue obstetric practice. Urban practice was defined as practice location in counties within a standard metropolitan statistical area (SMSA), ie, a county or group of counties containing at least one central city with a population of 50,000 or more. Rural practice was defined as practice location not within an SMSA area.

RESULTS

Two hundred ninety-one questionnaires from the 357 mailed questionnaires were returned for a response rate of 81.5 percent. Seventy-four percent of respondents replied to the first mailing.

Demographics

Mean age reported by respondents (n = 187) was 41.4 years with a range from 28 to 72 years (standard deviation = 9.9 years). Of 270 respondents whose sex was known, 33 (12.2 percent) were women. One hundred eighty-one physicians (62.2 percent) were practicing in urban areas, while the remaining 110 (37.8 percent) were practicing in rural areas. Two hundred thirty-six family physicians (95.2 percent) in this sample were board certified (n = 248). This percentage is higher than the AAFP reported figure of 89 percent board certification among active Michigan members who practice obstetrics ($\chi^2 = 7.0$, $P < .01$) and stands in sharp contrast to the AAFP figure of 71 percent board certification among active Michigan members not practicing obstetrics ($\chi^2 = 56.8$, $P < .001$). The median year of board certification was 1979. One-hundred fourteen respondents were board certified before 1980 and the remaining 66 physicians were certified between 1981 and 1986.

Practice Arrangements

From the 261 physicians reporting practice type, 31.4 percent were in solo practice, 24.5 percent were in partnerships, 27.2 percent were in single specialty groups (including academic family physicians), and 11.1 percent were in multispecialty groups. The remaining 15 physicians were in practice arrangements including practice within a health maintenance organization (n = 2), exclusively administrative positions (n = 3), and shared office space with a physician in another specialty (n = 2). The distribution of practice arrangements is contrasted in Table 1 with 1986 census data of active MAFP members, active family practice residency graduates, and active American Academy of Family Physicians (AAFP) members. The practice arrangements for the sample physicians were significantly different from both active MAFP members ($\chi^2 = 14.4$, $P < .005$) and active AAFP members ($\chi^2 = 33.6$, $P < .001$) primarily in that fewer sample physicians were in solo practice and more were in partnerships. When compared with active family practice residency graduates, practice arrangements for the sample physicians were significantly different in that more sample physicians were practicing in partnerships and fewer were practicing within multispecialty groups ($\chi^2 = 12.6$, $P < .01$). Practice arrangements did not significantly differ between physicians who planned to continue practicing obstetrics (n = 204) and those who had stopped or were planning to stop obstetric practice in 1987 (n = 41).

Family Practice Obstetrics

Among family physician respondents (225/235) currently caring for obstetric patients, the mean number of obstetric patients seen per individual physician per year was 41 with a range of 3 to 150 women per year. For the physician's entire practice including partners, the mean number

TABLE 1. PRACTICE ARRANGEMENTS (PERCENTAGE) FOR ACTIVE FAMILY PRACTICE MEMBERS OF MICHIGAN AND AMERICAN ACADEMY OF FAMILY PHYSICIANS (MAFP, AAFP)

	Solo	Partner-ship	Family Practice Group	Multi-specialty Group
Active members of MAFP practicing obstetrics (N = 261)	31.4	24.5	27.2	11.1
All active members of MAFP, 1986* (N = 673)	42.9	16.5	30.9	8.9
Active residency-trained family physicians, 1986 (N = 9,741)	31.1	18.2	33.3	16.3
Active AAFP members, 1986 (N = 24,281)	47.1	14.4	25.2	12.5

** From the AAFP Member Profile Database, February 1986. The last census profiling the practices of active members was conducted in 1983. These figures were updated in 1986 by surveying new active members, active members who change their addresses, and reelected active members*

TABLE 2. OBSTETRIC PRIVILEGES (PERCENTAGE) HELD BY MAFP MEMBERS

Privileges (N)	Currently Held	Not Held	Denied
Spontaneous vaginal delivery (248)	99	1	
Low forceps or vacuum extraction (246)	95	4	1
Mid-forceps delivery (237)	21	78	1
Cesarean section (236)	12	87	1
Repair of third-degree laceration (243)	95.5	4	0.5
Repair of fourth-degree laceration (243)	87	12	1
Dilation and curetage (243)	79	19	2

TABLE 3. REASONS REPORTED FOR DISCONTINUING THE PRACTICE OF OBSTETRICS*

Reasons	All MAFP Members Discontinuing Obstetrics (n = 44) No. (%)	Members Recently Discontinuing Obstetrics (n = 22) No. (%)
Malpractice liability risk	29 (66)	15 (68)
Malpractice premium cost	18 (41)	10 (45)
Interference with lifestyle	9 (20)	5 (23)
Volume too low to justify expense	4 (9)	1
Practice too busy to include obstetrics	1	1
Inadequate training in obstetrics	1	1
Other	3	1

** Respondents could give more than one response*

of obstetric patients was 108 with a range of 3 to 650. Physicians who had recently discontinued or were planning to discontinue the practice of obstetrics saw significantly fewer obstetric patients both individually and per practice compared with physicians planning to continue this practice (mean number of obstetric patients per individual physician per year was 26 and 42, respectively, and the mean number of obstetric patients per practice per year was 53 and 116, respectively).

Ninety-two and 93 percent of family physicians in this sample reported participation in prenatal (234/254) and postpartum (233/251) care, respectively. Eighty-seven percent participated in delivery (216/249) including 11 percent performing cesarean sections as surgeon (22/195). An additional 72 percent participated in cesarean sections as assistant (172/240). Obstetric privileges held by respondents are listed in Table 2. Few physicians reported being denied privileges requested. In addition to holding fewer privileges in obstetric procedures, significantly fewer physicians who had discontinued or were planning to discontinue obstetrics reported performing dilation and curettage procedures (54 percent vs 83 percent, $\chi^2 = 14.4$, $P < .001$).

Two hundred thirty-five of the 291 respondents (80.8 percent) were practicing obstetrics in 1986. This figure represents 25 percent of the total MAFP membership. Twenty-two of the 235 physicians (9.4 percent) planned on discontinuing obstetric practice by early 1987. Reasons for discontinuing obstetrics are listed in Table 3 for all physicians who do not practice or are planning to quit practicing obstetrics (n = 44) and for the subgroup of 22 who had recently or would soon discontinue obstetric practice.

Demographic variables and characteristics of physician practice were investigated between family physicians planning to continue obstetric practice and those discontinuing or not participating in obstetric practice. While there was a trend toward younger physicians continuing to practice obstetrics (mean age 40.2 years compared with 43.4 years for those discontinuing or not practicing obstetrics), no significant differences were found between groups.

Malpractice Coverage

The majority of family physicians (72.6 percent) in this sample carried $200,000/$600,000 malpractice insurance coverage. Of the remaining physicians, 19.9 percent carried $100,000/$300,000 and 2.9 percent carried $1 million/$1 million coverage. The mean insurance premium amount paid (n = 200) was $9228 with a range of $4000 to $37,000 and a standard deviation of $4300.

Teaching Affiliation

One hundred thirty-two of the 291 respondents (52.8 percent) were currently affiliated with a medical school or family practice residency program. Of the remaining 118, 71 expressed an interest in some level of affiliation. Physicians who plan to continue obstetrics are more likely to have a residency affiliation than those who discontinued or plan to discontinue the practice of obstetrics (58 percent vs 33 percent, $\chi^2 = 8.1$, $P < .005$). This relationship persisted even when age, practice location, and type of practice were controlled in a multivariate analysis. While residency affiliation accounted for approximately two thirds of the explained variance among demographic factors, demographic factors only accounted for 3.9 percent of the total variance.

DISCUSSION

The results of this study of Michigan family physicians agree well with similar studies of Washington[15] and Ohio[12] family physicians, with a few important differences and extensions. While the proportion of MAFP members practicing obstetrics (25 percent) is similar to that in Ohio (21 percent), it is far less than the proportion in Washington (61 percent), particularly considering that the results were obtained only a year apart. This difference may reflect the demographic and regional practice differences of the states, as suggested by the urban-rural practice location differences of MAFP members practicing or not practicing obstetrics.

The practice arrangements of MAFP members practicing obstetrics parallel those of Washington family physicians: a greater proportion of single-specialty (family practice) group practices and a lesser proportion of multispecialty group practice and solo practice than for MAFP members not practicing obstetrics. These findings reflect the need for family practice collegial relationships, afterhours coverage, and professional and emotional support for the stresses and demands of obstetric practice. This difference in practice arrangements also suggests that the rapid rate of discontinuation of obstetric practice may slow as those family physicians continuing to practice obstetrics have a more advanced level of hospital privileges (perhaps because of more or better training), better afterhours coverage and back-up, and better group practice collegiality and emotional support.

Finally, the greater tendency for Michigan family physicians practicing obstetrics to have medical school or residency program affiliation is consistent with the study of Ohio family physicians previously cited.[12] In the Ohio study, full-time family practice faculty were more likely than nonfaculty physicians to practice obstetrics (20 and 5 percent, respectively). The data from Michigan demonstrated the same pattern among physicians whose academic commitments varied from full-time faculty status to occasional precepting duties.

Several factors might account for the association between academic affiliation and obstetric practice. Support from either obstetrician consultants or other family physicians may be more available in an academic setting. This ready access to consultation might lead to higher levels of professional satisfaction on the part of family physicians. In addition, the availability of house staff may make obstetric practice more feasible. Finally, participation in obstetrics may be a requirement for a faculty position. Quite possibly, all these factors contribute. The present data, however, do not allow for further clarification of these potential effects. Obstetric consultation alone is not likely to be the key factor. In the study by Tietze et al, over three fourths of family physicians discontinuing obstetrics had consultants locally available.[11]

It is known that family physicians practicing obstetrics serve as important role models for medical students and family practice residents.[16] This important role-modeling will more likely occur when MAFP members have, or seek, educational affiliations. Of note in the present data are the 71 MAFP members with no academic affiliation who expressed a desire for one. Providing medical school or residency affiliations to private family physicians desiring them may be an important way of supporting and furthering the practice of obstetrics in family medicine.

In summary, obstetrics is practiced by a significant minority of active members of the Michigan Academy of Family Physicians. Malpractice concerns are an important factor in deciding to discontinue the practice of obstetrics, but practice arrangements and educational affiliations are other important factors that may be more amenable to change through educational or administrative interventions. In this technological age, attention should be focused on all important aspects of supporting family physicians to continue to provide low-risk, family-centered obstetric care.

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