

Influence of Obstetric Practice on Workload and Practice Patterns of Family Physicians and Obstetrician-Gynecologists

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ABSTRACT

PURPOSE Obstetric practice among family physicians has declined in recent years. This study compared the practice patterns of family physicians and obstetrician-gynecologists with and without obstetric practices to provide objective information on one potential reason for this decline—the impact of obstetrics on physician lifestyle.

METHODS In 2004, we surveyed all obstetrician-gynecologists, all rural family physicians, and a random sample of urban family physicians identified from professional association lists (N = 2,564) about demographics, practice characteristics, and obstetric practices.

RESULTS A total of 1,197 physicians (46.7%) overall responded to the survey (41.5% of urban family physicians, 54.7% of rural family physicians, and 55.0% of obstetrician-gynecologists). After exclusions, 991 were included in the final data set. Twenty-seven percent of urban family physicians, 46% of rural family physicians, and 79% of obstetrician-gynecologists practiced obstetrics. The mean number of total professional hours worked per week was greater with obstetric practice than without for rural family physicians (55.4 vs 50.2, $P = .005$) and for obstetrician-gynecologists (58.3 vs 43.5, $P = .000$), but not for urban family physicians (47.8 vs 49.5, $P = .27$). For all 3 groups, physicians practicing obstetrics were more likely to provide inpatient care and take call than physicians not practicing obstetrics. Large proportions of family physicians, but not obstetrician-gynecologists, took their own call for obstetrics. Concerns about the litigation environment and personal issues were the most frequent reasons for stopping obstetric practice.

CONCLUSIONS Practicing obstetrics is associated with an increased workload for family physicians. Organizing practices to decrease the impact on lifestyle may support family physicians in practicing obstetrics.

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INTRODUCTION

In 2006, only 20% of family physicians reported practicing obstetrics.¹ The percentage may continue to drop; 2 recent surveys of family medicine residency graduates have shown a steady decline in the percentage practicing obstetrics over the past decade.^{2,3} The liability environment, insurance premium costs, and associated changes (eg, the decrease in consultant availability, the rise in cesarean delivery rate) have received the most attention as factors contributing to this decline.⁴⁻⁸ Another important factor that may contribute to the decline in obstetric practice among family physicians, however, is its perceived or real impact on lifestyle. A growing literature has documented that physicians increasingly are taking into account lifestyle issues such as weekly practice work hours and on-call responsibilities when making career decisions.⁹⁻¹¹ Few

studies have actually documented the relationship between obstetric practice and physician workload and lifestyle, however.¹²

This survey helps fill this information gap by examining the current practice patterns of both family physicians and obstetrician-gynecologists in Washington State, as well as the influence of practicing obstetrics on family physicians' and obstetrician-gynecologists' work patterns. It also describes the most common reasons for family physicians' and obstetrician-gynecologists' decisions to discontinue obstetrics. The results of this study can help facilitate the career decisions of medical students as well as residents in both family medicine and obstetrics and gynecology. The findings may also help practices understand organizational strategies that might facilitate recruitment and retention of obstetrically active physicians.

METHODS

We identified Washington State obstetrician-gynecologists and family physicians in early 2004 from membership lists of Washington State professional associations. Rural and urban family physicians were distinguished using the ZIP code version of the Rural-Urban Commuting Areas (RUCA) classification, which combines census tract information and the standard Bureau of Census urban area and place definitions with commuting information to characterize all of the nation's census tracts and ZIP codes as to their rural and urban status and functional relationships.^{13,14}

We mailed a 4-page questionnaire (shown in the Supplemental Appendix, available online-only at http://www.annfam.org/cgi/content/full/6/suppl_1/s5/DC1) to all obstetrician-gynecologists and rural family physicians, and to a simple random sample of urban family physicians. The questionnaire asked about demographic and practice characteristics, liability insurance characteristics, practice changes and limitations due to liability insurance issues, current obstetric practice, obstetric practice history, and changes in the obstetric practice environment. The full questionnaire was mailed to nonresponders 2 additional times after the initial mailing. An abbreviated, 10-item questionnaire was mailed to nonrespondent obstetrician-gynecologists and rural family physicians after the first 3 mailings. The University of Washington Institutional Review Board approved this research, and participants gave informed consent through their response to the questionnaire. Survey findings related to liability insurance issues and their relationship to practice patterns have been published previously.⁷

Data were analyzed using version 14.0 of SPSS for Microsoft Windows (SPSS Inc, Chicago, Illinois).

We first compared the demographic and practice characteristics, obstetric practices, and reasons for stopping obstetrics between the 3 physician groups using standard unpaired *t* tests for continuous variables and χ^2 tests for categorical variables. We then compared the workload as well as inpatient and on-call practices between physicians who did and did not practice obstetrics within each physician group using the same statistical methods.

RESULTS

We sent 2,564 questionnaires to 1,157 urban family physicians, 579 rural family physicians, and 828 obstetrician-gynecologists. We had initial response rates of 41.5%, 54.7%, and 55.0%, respectively. After excluding physicians who were not currently practicing, were out of state, or were in training programs, the final data set included 382 urban family physicians, 272 rural family physicians, and 337 obstetrician-gynecologists. Only 30 obstetrician-gynecologists (8.9%) were practicing in rural areas, so we combined the rural and urban obstetrician-gynecologists in our analysis.

Physicians were asked to estimate the number of births they attended in 2003, and more than 90% responded to this question. Weighting these responses to the total obstetric practitioner population resulted in a statewide estimate of births that was very close to the actual number of live births in Washington in 2003,¹⁵ suggesting that our respondents were quite representative of the state's physicians in their obstetric practices.

The 3 physician groups were similar in several demographic characteristics (age, race) and practice type (Table 1). Obstetrician-gynecologists were the most likely to be female, whereas rural family physicians were the least likely. Obstetrician-gynecologists and rural family physicians were most likely to be self-employed, whereas urban family physicians were most likely to work in health maintenance organizations and other nonprofit clinics.

Most obstetrician-gynecologists practiced obstetrics, whereas less than one-half of rural family physicians and slightly more than one-quarter of urban family physicians did so (Table 2). Virtually all obstetrician-gynecologists performed instrumented deliveries and cesarean deliveries. The majority of urban and rural family physicians performed instrumented deliveries, whereas essentially no urban family physicians and about one-third of rural family physicians performed cesarean deliveries. On average, both urban and rural family physicians attended about 2 deliveries monthly, whereas obstetrician-gynecologists attended about 10 monthly. The majority of

Table 1. Demographic and Practice Characteristics of Study Participants

Characteristic	Urban Family Physicians (n = 382)	Rural Family Physicians (n = 272)	Obstetrician-Gynecologists (n = 337)
Sex,* n	381	267	337
Female, %	35.2	26.2	49.9
Age, n	380	266	337
Mean (range), years	48.3 (29-78)	48.3 (31-82)	48.3 (31-76)
Distribution			
<40 years, %	21.3	23.3	21.9
40-49 years, %	32.9	29.7	30.5
50-59 years, %	35.0	35.0	36.2
≥60 years, %	10.8	12.0	11.4
Race, n	358	230	290
African American, %	1.4	0.9	1.7
Asian, %	7.8	1.7	8.3
Hispanic, %	2.5	1.7	2.1
White, %	86.0	90.9	85.5
Other, %	2.2	4.8	2.4
Type of practice, n	378	240	300
Solo, %	17.2	19.6	21.3
Single-specialty group, %	48.7	47.5	45.0
Multispecialty group, %	30.4	28.8	31.7
Other, %	3.7	4.2	2.0
Employer,* n	374	240	298
For profit—self-employed or partner, %	47.1	59.6	65.4
For profit—not partner, %	12.0	11.7	6.4
Private nonprofit clinic, %	17.4	12.1	10.7
Private nonprofit HMO, %	14.4	0.4	7.7
Other,† %	9.1	16.3	9.7

HMO = health maintenance organization.

Note: The n values indicate the number of respondents for that characteristic.

* $P \leq .001$.

† Tribal organization, government, military, and other.

rural family physicians' obstetric patients and about 40% of obstetrician-gynecologists' obstetric patients had Medicaid insurance. Rural family physicians predominantly took their own call for obstetric patients, although both urban and rural family physicians took their own call at much higher rates than obstetrician-gynecologists. Obstetrician-gynecologists were the most likely of the 3 groups to share call outside of their practices, although they primarily shared call within their practices.

The majority of all 3 physician groups had practiced obstetrics at some point during their careers (Table 3). A sizable minority of all 3 physician groups who had stopped practicing obstetrics (20%-23%) stated that they would consider restarting obstetrics. The most common reasons for discontinuing obstetrics included concerns about the litigation environment and personal issues. The litigation environment was reported as a stronger deterrent for rural family physicians and obstetrician-gynecologists than for urban family physicians, for whom personal issues were the strongest deterrent.

Table 4 compares the practice patterns of physicians in each group who were and were not practicing obstetrics. Practicing obstetrics significantly increased the number of total professional hours for both rural family physicians and obstetrician-gynecologists, but not for urban family physicians. For all 3 physician groups, practicing obstetrics increased the percentage of patient care hours that were spent in the care of hospital inpatients. In each group, those physicians not practicing obstetrics were significantly less likely to provide any inpatient care and to take call than their counterparts practicing obstetrics.

Table 2. Obstetric Practice Patterns of Study Participants

Measure	Urban Family Physicians (n = 382)	Rural Family Physicians (n = 272)	Obstetrician-Gynecologists (n = 337)
Personally provide obstetrics,* n (% yes)	365 (27.4)	260 (46.2)	334 (79.3)
Provide advanced obstetric services			
Provide instrumented deliveries,* n (% yes)	99 (67.7)	102 (70.6)	242 (99.2)
Provide cesarean deliveries (primary surgeon),* n (% yes)	97 (4.1)	102 (36.3)	242 (98.8)
Obstetric patients delivered in 2003,* n (mean n)	94 (23.1)	98 (24.9)	232 (123.6)
Obstetric patients insured by Medicaid in 2003,* n (% insured)	85 (53.5)	91 (71.4)	201 (39.5)
Obstetric call arrangement,* n	96	101	242
Own call, %	37.5	45.5	7.9
Share within practice, %	42.7	33.7	62.4
Share outside practice, %	10.4	6.9	18.2
Other, %	9.4	13.9	11.6

Note: The n values indicate the number of respondents for that measure. Percentages may not sum to 100 because of rounding.

* $P \leq .001$.

Table 3. Obstetric Care Choices Among Physicians Not Practicing Obstetrics

Measure	Urban Family Physicians (n = 265)	Rural Family Physicians (n = 140)	Obstetrician-Gynecologists (n = 69)
Previously practiced obstetrics, n (% yes)*	257 (71.1)	139 (79.1)	69 (82.6)
Would consider restarting obstetrics, n (% yes)	181 (23.2)	99 (23.2)	46 (19.6)
Reasons for stopping obstetrics, n	181	110	57
Litigation environment			
First reason listed, %*	22.1	36.4	36.8
Listed at all, %†	55.2	72.7	68.4
Personal			
First reason listed, %*	27.6	15.5	19.3
Listed at all, %†	66.9	46.4	52.6
Practice environment			
First reason listed, %*	7.7	10.9	0.0
Listed at all, %†	39.2	54.5	8.8
Age related			
First reason listed, %†	0.0	1.8	8.8
Listed at all, %†	8.8	6.4	22.8
Professional focus change			
First reason listed, %	5.0	0.9	3.5
Listed at all, %*	22.1	10.9	28.1

Note: The n values indicate the number of respondents for that measure.

* $P \leq .05$.

† $P \leq .01$.

‡ $P \leq .001$.

Among those taking call, the mean number of monthly on-call hours was similar for both rural and urban family physicians, regardless of obstetric practice status. On the other hand, those obstetrician-gynecologists who did not practice obstetrics had a significantly higher mean number of monthly on-call hours, but a significantly lower mean number of monthly on-call patients than their counterparts who practiced obstetrics.

DISCUSSION

The decision of whether to practice obstetrics is a difficult one for many family physicians; it often involves financial, practical, legal, and lifestyle considerations. This study provides objective information about the impact of including obstetrics on family physicians' and obstetrician-gynecologists' practices that can guide physicians as they make their practice decisions. We found that rural family physicians and obstetrician-gynecologists who practiced obstetrics had heavier workloads than their counterparts who did not. Their mean number of professional hours was greater, and they were more likely to provide inpatient care and take call than those not practicing obstetrics. Although

obstetric practice was not associated with an increase in the mean weekly professional hours of urban family physicians, as for their rural counterparts, it was associated with a greater likelihood of providing inpatient care and on-call services. Comparison with results from a survey of licensed obstetrician-gynecologists in Washington State in 1998-1999 reveals that the obstetrician-gynecologists in our study were working more total professional hours, had more weekly outpatient visits, attended a greater number of deliveries per year, and spent a higher proportion of total hours in direct patient care.¹⁶ This pattern suggests that over the course of 5 years, the workload for physicians practicing obstetrics has increased. These findings, alongside reports that physicians increasingly seek careers with more controllable lifestyles, could help explain the increasing attrition from obstetrics.⁹⁻¹¹

The reasons that physicians listed for discontinuing obstetrics in our study also support the importance of a controllable lifestyle to family physicians. There was a strong role for personal issues, such as wanting more

personal time, especially for urban family physicians. At the same time, a large percentage of both urban and rural family physicians reported taking their own obstetric call, a practice that certainly decreases the availability of unrestricted personal time. These results suggest that making changes to practice organization, such as circumventing solo call or using obstetrically active hospitalists (so-called laborists),¹⁷ might make obstetric practice a more viable component of family physicians' practices.

The worsening medical liability milieu has been suggested as a substantial contributor to the increasing attrition from obstetrics in multiple studies,¹⁸⁻²¹ although some studies have disputed this association.^{22,23} Our study's findings support this concern, as between one-half and three-quarters of those physicians who had stopped practicing obstetrics listed some aspect of the litigation environment, including the affordability of malpractice insurance, as a contributor to their decision to quit. At the same time, prior research has demonstrated that changing the malpractice environment will not necessarily affect physicians' likelihood of practicing obstetrics. Nesbitt et al²⁴ surveyed a group of family physicians and identified

Table 4. Practice Pattern by Physician Group According to Whether Physicians Practice Obstetrics (Yes) or Not (No)

Measure	Urban Family Physicians			Rural Family Physicians			Obstetrician-Gynecologists		
	Yes (n = 100)	No (n = 265)	P Value	Yes (n = 120)	No (n = 140)	P Value	Yes (n = 242)	No (n = 69)	P Value
Total professional hours per week									
No. responding	100	261		104	126		238	58	
Mean no. of hours	47.8	49.5	.27	55.4	50.2	.005	58.3	43.5	.000
Patient care hours spent per week									
No. responding	100	261		104	126		238	58	
Direct patient care hours, mean %	82.8	85.5	.23	88.6	87.6	.47	87.0	79.3	.009
Indirect patient care hours, mean %	18.0	14.6	.14	11.6	12.5	.51	12.8	20.9	.006
Direct patient care hours spent per week									
No. responding	99	258		104	127		231	56	
Ambulatory clinics, mean %	85.5	89.9	.06	78.8	81.2	.37	65.7	76.9	.000
Hospital inpatient settings, mean %	9.3	4.1	.000	13.1	7.4	.000	21.9	11.2	.000
Other settings, mean %	5.2	6.1	.69	8.1	11.4	.17	12.4	12.0	.84
Weekly outpatient visits									
No. responding	100	259		103	126		233	57	
Mean no.	77.7	84.2	.11	83.6	81.9	.66	74.9	47.6	.000
Provide inpatient care									
No. responding	99	250		101	122		233	57	
Yes, %	84.8	45.2	.000	96.0	70.5	.000	100.0	70.2	.000
Among those providing inpatient care									
No. responding	84	113		97	86		233	40	
Mean no. of weekly inpatient visits	4.2	5.1	.15	8.3	7.7	.52	10.5	6.4	.001
Take call									
No. responding	92	242		96	120		228	54	
Yes, %	97.8	79.8	.000	97.9	84.2	.000	99.6	68.5	.000
Among those taking call									
Monthly on-call hours									
No. responding	90	193		94	101		227	37	
Mean no. of hours	96.8	109.2	.39	122.2	141.3	.36	119.5	201.6	.03
Monthly on-call patients									
No. responding	84	148		89	90		221	36	
Mean no. of patients	10.7	26.5	.04	16.3	22.1	.18	19.3	6.9	.000

those who had recently stopped practicing obstetrics and indicated that they would consider resuming obstetric practice if malpractice premium costs were lowered. One year later, they resurveyed the group after the major malpractice insurer lowered malpractice premiums by 25%, but none of the respondents had restarted or were planning to resume obstetrics. This finding suggests that the impact of lifestyle factors on physicians' decisions to practice obstetrics is important.

Our study also documented that family physicians, especially those in rural areas, cared for a greater proportion of Medicaid obstetric patients than did obstetrician-gynecologists, although in absolute num-

bers, obstetrician-gynecologists cared for the majority of such patients. Family physicians commonly provide obstetric care in rural areas; therefore, access of Medicaid patients depends heavily on family physicians continuing their obstetric practices. Because decreased access to obstetric care has been linked to worse birth outcomes,²⁵⁻²⁷ maintaining obstetrics as an integral part of rural family physicians' practices is very important to the rural population.

The extent to which the results of this study can be generalized to the entire population of family physicians and obstetrician-gynecologists may be limited. The roughly 50% response rate subjects the results

to the possibility of nonresponse bias. It is encouraging that the weighted number of reported deliveries for 2003 is within 7% of the number of live births reported by Washington's vital records system in 2003, suggesting that the survey respondents' obstetric volumes are representative of those of the state's physicians. Having the same obstetric volumes, however, does not ensure that the responding physicians necessarily had the same practice characteristics, history, or composition. This potential response bias, as well as a lack of information on nonrespondents so that we could evaluate the representativeness of our sample, is a limitation of this study.

Some inconsistencies in the physicians' responses to our questions about on-call hours suggest another study limitation. More obstetrically active family physicians than obstetrician-gynecologists took their own call for obstetric patients, yet they had fewer call hours than obstetrician-gynecologists and no more call hours than family physicians not practicing obstetrics. This finding suggests that family physicians may have recorded only the formal on-call hours for their practices when answering this question, thus underestimating the impact of taking their own call for obstetric patients in this survey.

This study helps elucidate the influence of obstetrics on the lifestyle of practicing physicians and suggests that obstetric practice does increase physicians' workload. This greater workload could influence not only family physicians' choices regarding obstetric practice, but also interest in family medicine as a specialty, which is declining.²⁸ Medical students who are increasingly interested in specialties with controllable lifestyles may not choose family medicine with its continued training in obstetrics. To provide additional information to medical students and physicians to inform their career choices, future research might examine the practice patterns and satisfaction of physicians who have stopped practicing obstetrics to determine whether the expected gains truly bear out, and to identify the impact of terminating obstetrics on the financial viability of their practices. Additional research should explore whether alternative practice arrangements, such as more extensive shared call systems for family physicians practicing obstetrics, would help stem the tide of family physicians relinquishing this time-honored tradition that serves our practices' families.

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