Structure and Characteristics of Family Medicine Maternity Care Fellowships

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BACKGROUND AND OBJECTIVES: Fewer family physicians are providing maternity care. Maternity Care Fellowships (MCFs) provide training in advanced obstetrical skills, including cesarean sections. These programs lack official recognition and certification. MCF graduates have been studied, but there are no studies of the fellowships. The objective of this study was to assess the structure and organization of family medicine MCFs.

METHODS: We identified MCFs from the American Academy of Family Physicians website. Twenty-nine unique and active programs were included in the final sample. We surveyed programs via an anonymous internet methodology. The survey asked about program structure, organization, and educational aspects of the program.

RESULTS: A total of 18 programs responded, for a 62% response rate. Eighty-eight percent of MCFs were 1 year in length, and the mean number of fellows per year was 1.9. All but one program were associated with a residency training program, and 55.6% were based in community hospitals. All but two programs had a standardized curriculum. Eighty-eight percent of MCFs had obstetricians involved in teaching or clinical supervision. Mean estimated number of deliveries performed by fellows were 80 vaginal and 108 caesarian. Graduates of MCFs were largely able to obtain caesarian privileges after graduation, and many were working in rural and/or underserved areas. Many MCF directors favored formal accreditation and a standardized curriculum across programs.

CONCLUSIONS: Despite lack of formal accreditation, MCFs have academic affiliations and internally standardized curricula. MCFs provide an obstetric workforce for rural and underserved areas, and formal accreditation may ensure program survival and boost educational standards.

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Fewer family physicians are performing obstetrical deliveries[1-3] and providing prenatal care.[3,4] This shift coincides with larger trends in shrinking scope of practice by family physicians.[5-7] Family physicians provide a predominance of care in rural areas,[8] where obstetricians are not commonly located.[9] Despite the relative lack of obstetricians in rural areas to provide such care, the proportion of prenatal visits attended by family physicians decreased from 38.6% in 1995 to 12.9% in 2003.[4] However, family physicians still routinely see pregnant women, since a recent analysis of National Health Interview Survey data from 2000 to 2009 found that 34% of pregnant women had seen a family physician in the previous year for some aspect of care.[10] With proposed changes to the maternity care requirements for family medicine residency training,[11,12] the specialty of family medicine is at a critical juncture regarding how integral obstetrical care is to the core of a family physician's skill set.

Maternity Care Fellowships (MCFs) are one way family physicians may obtain advanced obstetrical skills and training, including performing cesarean sections. Two recent studies reported on the practice patterns of MCF graduates. Rodney et al described the outcomes of all graduates from a single fellowship over 20 years and found 96% were able to obtain cesarean privileges.[13] They also found a significant attrition from obstetrical care over time with 90% of the more recent cohort of graduates from 2002–2010 still performing deliveries compared to 61% of the earlier cohort of graduates from 1992–2001. Chang Pecci et al surveyed graduates of 39 programs, many of which had closed,

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and found that physicians still performing cesarean sections were more likely to be in the south and west regions of the country, in rural locations, be less than 10 years from fellowship completion, and had performed more cesareans during their fellowship.[14]

Family medicine MCFs are not officially recognized nor accredited by the Accreditation Council of Graduate Medical Education (ACGME). Without formal recognition, programs do not qualify for federal graduate medical education (GME) funding to support fellows, and graduates are not eligible for certification by an American Board of Medical Specialties (ABMS) member board. Without formal accreditation, standards for training, educational quality, and program outcomes do not exist. While studies of graduates' outcomes for these programs have been published in the literature,[13,14] no studies to date have investigated the structure and organization of family medicine MCFs. To this end, the objective of our study was to determine the structure and educational requirements of family medicine MCFs. A secondary objective was to determine practice location and outcomes of graduates.

Methods

We identified 36 programs listed as maternity care/obstetrics or women's health fellowships from the American Academy of Family Physicians on-line fellowship listing.[15] We contacted each fellowship to verify contact information and to ensure they provided training in obstetrics. Twenty-nine active and unique programs that currently had fellows and provided training in maternity care were included in the final sample.

The survey was designed by staff at the American Board of Family Medicine (ABFM) with input from other family medicine educators. Survey content was piloted with fellowship directors for validity and content. The survey contained questions about the characteristics of the fellowships, the educational and training environments within the fellowships, curricular elements, numbers of deliveries performed by fellows, and questions pertaining to where their program's graduates were practicing and whether they held obstetrical privileges. The survey also included two open-ended questions: "What kind of information would you find helpful from the ABFM?" and "Do you have any suggestions as to how the ABFM could help your program achieve its mission and goals?"

We invited fellowship directors to participate via an email that described the purpose of the survey and included a PDF version of the survey to allow them to gather the needed information before accessing the survey. The email contained a hyper-link to the anonymous survey, which was conducted through SurveyMonkey®. The survey was open for 6 weeks, in May and June of 2013, with email reminders sent to all participants at 2 and 4 weeks.

Descriptive statistics were used to characterize the survey responses. Two authors independently reviewed qualitative responses to determine emerging themes and representative statements about fellowship directors' suggestions and then reviewed comments together to achieve mutual agreement. This study was approved by the American Academy of Family Physicians Institutional Review Board. All analyses were performed in SAS Version 9.2 (Cary, NC).

Results

Eighteen programs responded to the survey, for a 62% response rate. A majority of fellowships are 1 year in length and train a mean of 1.9 (range 1 to 5) new fellows per year (Table 1). A total of 72.2% of the programs were exclusively associated with a family medicine residency, and 16.7% were associated with both a family medicine and an obstetrics and gynecology (OB-GYN) residency. One program was sponsored solely by an OB-GYN residency. A total of 55.6% of fellowships were community based.

Only one third of fellowships required dedicated faculty to be MCF trained. A total of 44.4%of the programs had board certified OB-GYNs on faculty, and all but two had educational sessions or clinical supervision by OB-GYNs. Regarding the educational and training environment for the programs, 88.9% have a standardized curriculum with written goals and objectives, and one third require graduates to perform a specific number of deliveries to complete the program (Table 2). Deliveries by fellows were mostly performed at the sponsoring institution (77.8%) or a community hospital (50.0%), with only two programs reporting deliveries at either a rural hospital or critical access hospital. Thirteen fellowships (72.2%) reported performing deliveries at only one type of hospital, three (16.7%) at two, and only two program's fellows delivered at three or more sites. No deliveries were performed at birth centers. Directors reported a wide variation among programs in the estimated numbers of deliveries performed annually by their fellows in the last 5 years. Mean normal spontaneous vaginal deliveries performed by fellows was 80 (SD=42.8) with a range of 40 to 200, and mean number of caesarian deliveries performed was 108.6 (SD=48.2), with a range of 60 to 190.

Ten fellowship directors reported that they survey or track their graduates (52%). Based on these fellowship directors' estimates, significant variation was seen between programs in production of rural and underserved physicians (Figure 1). One fellowship has produced only urban-located graduates while graduates of other programs were largely located in rural areas. A large majority of graduates were estimated to have current cesarean and operative vaginal delivery privileges (Figure 2).

Themes from the qualitative data included accreditation of fellowships, including working with the American Board of Physician Specialties (ABPS) to certify graduates, common educational criteria for fellowships,

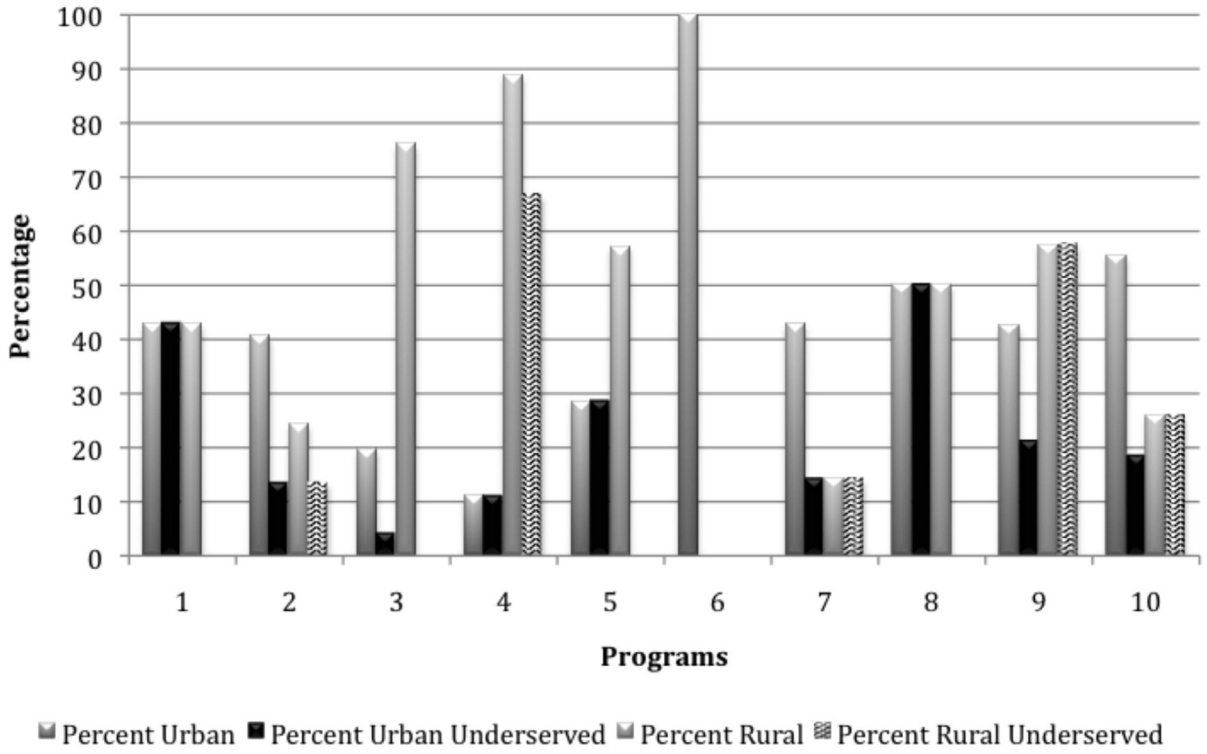
Table 1: Characteristics of Family Medicine Maternity Care Programs

		Mean (SD) or %
How many fellows does your program accept per year? n=18		1.9 (1.1)
How long is your fellowship? n=18	1 year	88.8%
	2 years	11.2%
How long has your fellowship been in existence? n=16		10.7 (7.7)
How many fellows have completed training in your program? n=16		22.8 (27.3)
Total number of graduates from all institutions		364 (range 2–94)
Is your fellowship associated with a residency training program? n=18	Yes, family medicine (FM)	72.2%
	Yes, obstetrics and gynecology (OB-GYN)	5.6%
	Yes both FM and OB-GYN	16.7%
	No	5.6%
How many dedicated fellowship faculty does your program have? n=17		4.4 (4.3)
Is your fellowship affiliated with a community hospital or university hospital? n=18	Community based	55.6%
	University based	38.9%
	Community hospital owned by a university system	5.6%

Table 2: Educational and Training Environment of Family Medicine Maternity Care Programs

		Mean (SD) or %
Does your program require dedicated fellowship faculty to be fellowship trained in maternity care? n=18		33.3%
Are any of your dedicated fellowship faculty board certified in obstetrics and gynecology? n=18		44.4%
If yes, how many are there? n=9		4.78 (5.24)
Do you have a standardized curriculum with written goals and objectives for the fellowship? n=18		88.9%
Do you have any board certified OB-GYNs provide regular didactic sessions or clinical supervision in your program? n=18		88.9%
Do you require graduates to perform a specific number of deliveries to complete the program? n=18		33.3%
If yes, how many	Cesarean sections? n=3	93.3 (11.6)
	Vaginally? n=1	60
	Overall? n=7	93.3 (11.5)
Where do you perform deliveries? (check all that apply) n=18	Sponsoring institution	77.8%
	Rural hospital	5.6%
	Community hospital	50.0%
	Critical access hospital	11.1%
	Birthing center	0.0%
Average number of deliveries performed by each fellow in training in the last 5 years	Normal spontaneous vaginal deliveries (n=15)	80.0 (42.8)
	Caesarian deliveries (n=16)	108.6 (48.2)
	Vaginal vacuum deliveries (n=16)	8.5 (4.7)
	Vaginal forceps deliveries (n=16)	2.3 (3.3)

Figure 1: Percentage of Maternity Care Fellowship Graduates by Program Who Practice in an Urban or Rural Location and by Underserved Location



* Underserved is location in a Health Professional Shortage Area (HPSA) or Medically Underserved Area (MUA) or serving a Medical Underserved Population (MUP)

concerns over declining residency emphasis on obstetrics resulting in declining OB skills of residency graduates, and beliefs that graduates of fellowship programs were serving the underserved.

Multiple respondents mentioned their desire to formalize their fellowship through accreditation. One respondent said simply "I would like there to be a certification process for OB fellowship programs." Multiple directors mentioned that there needs to be an official Certificate of Added Qualification (CAQ) or that the ABFM needs to "support their [ABPS] efforts to fill the hole that the ABMS has not been able to do for FM OB."

Regardless of certification, many directors favored a standardized curriculum for MCFs. One director stated that a "shared curriculum" would at least provide the "potential to create minimum standards" for the fellowship programs. Another director felt that a standard curriculum would make graduation from a fellowship more "meaningful as a credential."

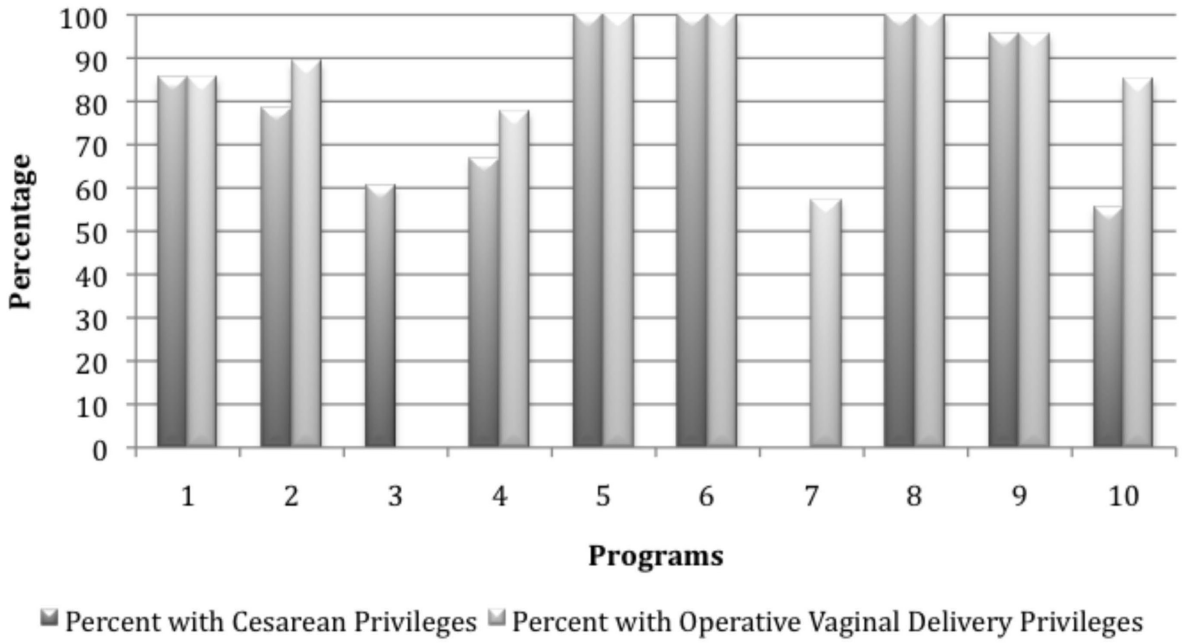
Many directors were concerned about the decline in skills and training of family medicine residents and not just in obstetrics. Multiple comments were made about the declining skills of residency graduates and how this may create a "negative impact when programs do not produce family physicians who practice full scope family medicine." Another director voiced concern that declining skills will lead to family medicine "graduates that have skill sets comparable with nurse practitioners." One director epitomized this theme by stating, "Family medicine faces a strategic challenge regarding its value for emergency services, urgent care services, obstetrics, and women's health care. Without women, care for children in the office withers."

Finally, there were strong claims that graduates of MCFs were providing a public good by working in rural or underserved areas where OB-GYNs were not. "My Fellows are the ones who care for the underserved and underprivileged."

Discussion

In this first study of the structure and organization of family medicine Maternity Care Fellowships, we found that despite lack of accreditation, almost all programs had formal educational curricula and were affiliated with a residency training program in either family medicine or obstetrics and gynecology. Many graduates of these programs were practicing in rural or underserved

Figure 2: Percentage of Maternity Care Fellowship Graduates by Program Who Obtained Cesarean and Operative Vaginal Privileges in Practice



areas, and almost all had cesarean section delivery privileges.

Ensuring an adequate workforce of maternity care providers for all women in America is a major public health concern.[16] The American Congress of Obstetricians and Gynecologists projects a 25% deficit in the numbers of needed OB-GYNs by 2030 and a 35% deficit by 2050.[17] Further, almost half of counties in the United States lack an OB-GYN with most of these counties being rural.[17] Family physicians may be ideally suited to help fill this gap but face their own current and projected shortage in numbers.[18] Certified nurse midwives may also help fill this workforce gap, but their scope of practice is limited, and they could never be the sole maternity care provider without emergency backup. These trends place rural and underserved women at risk of having no local maternity care provider. Family medicine MCFs are a potential essential part of the solution to this problem since they could ensure a supply of adequately trained maternity care providers. These fellowship trained physicians may help ensure that safe and effective maternity care is available in rural and underserved areas since evidence suggests comparable maternal and neonatal outcomes for cesarean deliveries at small rural hospitals performed by family physicians and OB-GYNs.[19,20]

A common theme in the free text responses was that fellowship directors believed their graduates were "the ones who care for the underserved and underprivileged." As mentioned earlier, the American Congress of Obstetricians and Gynecologists own workforce report found that nearly half of counties lack an OB-GYN.[17] Women in these largely rural areas will continue to require maternity care, and new models of shared care between OB-GYNs, family physicians, and nurse midwives will be required. One potential model would have family physicians providing prenatal care with laborists performing the delivery.[16] Another is a family physician/general surgery partnership that offers full-scope OB care in underserved areas. Incorporating maternity care into the patient-centered medical home is another strategy that may lead to partnerships between family medicine groups and maternity care providers. Finally, many residency training programs provide sufficient obstetrical experience for their graduates to obtain privileges for maternity care, including cesarean delivery, and these residencies should be supported. Maintaining maternity care's place as an essential element of family medicine training is crucial to ensuring an adequate supply of maternity care providers for all women in America.

Many fellowship directors stated that they would favor an official certification for their graduates. This sentiment is line with that of fellowship graduates since a previous study found that 86% favored a CAQ for obstetrics.[14] The potential threat that some programs may not meet accreditation standards and be forced to close is of concern. However, accreditation would possibly bring GME funding and the potential for certification by an ABMS member board for graduates. A further

benefit to accreditation would be uniform training standards and curricula that would guarantee that fellowship graduates were prepared to provide the safest and highest quality care to their patients. Unfortunately, the ABFM currently cannot offer a CAQ in obstetrics because an ABMS member board cannot offer a subspecialty certificate in the field of another primary specialty without that specialty's consent. An alternative certifying board, the ABPS, does offer a certificate in family medicine obstetrics but whether that credential enables attainment of hospital privileges in advanced obstetrics remains unknown.

Our study has multiple limitations. First, all data are self-reported, and data on performance of fellows and their current practice characteristic are subject to recall bias. However, the estimated numbers of cesareans performed during fellowship, the percentage of graduates obtaining cesarean privileges, and rural location were consistent with a direct survey of fellowship graduates.[14] Second, given the anonymous nature of our survey we have no information on nonrespondents and cannot ascertain the representativeness of our data, which may limit the generalizability of our findings.

In conclusion, we found that despite accreditation, most family medicine MCFs had formal curricula, procedural requirements for trainees, and were associated with a residency training program. Supporting these fellowships and their graduates may be critical in ensuring that all women in America have access to maternity care regardless of where they live.

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