

Family Practice Maternity Care In America: Ruminations On Reproducing An Endangered Species — Family Physicians Who Deliver Babies

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Background: The majority of family physicians do not deliver babies. One reason might be the family physician's intrinsic comfort with person- or patient-centered care compared with the common obstetric approach of disease or physician-centered maternity care. Another reason might be the uncritical intrusion of technology into maternity care. In addition, family physicians often are made to feel unwelcome in many maternity care systems.

Methods: The medical literature from 1984 to 1994 was searched for the topics of obstetrics, maternity care, family-centered birthing, and family practice education. Reasons to argue whether family physicians should provide maternity care were selected, and articles were chosen that described the self-reported reasons students, residents, or physicians give whether to provide maternity care.

Results and Conclusions: There is no scientifically supportable reason for excluding family physicians from maternity care in any setting, and the current maternity care system, in many locations, creates an attitude of taught helplessness among family physicians. In addition, family practice educators must for a variety of reasons be the primary role models and teachers of family-centered birthing for family practice learners.

Generally, the groups that should be involved in providing maternity care in the future should include (1) better informed and more independent pregnant patients, (2) maternity care nurses, (3) doulas, (4) midwives, (5) family physicians, and (6) specialized physicians. Specifically, family physicians and midwives have a historic and philosophic similarity that would argue for a much closer working and practicing relationship between these two professionals.

Family-centered birthing provides excellent outcomes. Birthing is both foundational and intrinsic to family practice. Conversely, without family physicians maternity care in America might not be able to reach its full potential. (J Am Board Fam Pract 1994; 7:478-88.)

When one asks the question "What is the future of obstetrics or maternity care in family practice?"¹⁻²⁰ it is often restated by many outside and some inside the family practice community as, "Should family physicians be practicing obstetrics at all?"^{1,3,6,16,17,19} The majority of family physicians do not provide maternity care, and for the last 25 years there has been a strong movement away from maternity care in family practice.^{3,6,9,10,12,13,16,17,21-25} This movement has been described as an "exodus";³ therefore, it seems appropriate to quote from *Exodus*:

The King of Egypt said to the Hebrew midwives, "When you help the Hebrew women in childbirth and observe them on the delivery stool, if it is a boy, kill him; but if it is a girl, let her live." The midwives, however, feared God and did not do what the King of Egypt had told them to do; they let the boys live. Then the King of Egypt summoned the midwives and asked them, "Why have you done this? Why have you let the boys live?" The midwives answered Pharaoh, "Hebrew women are not like Egyptian women; they are vigorous and give birth before the midwives arrive."

So God was kind to the midwives and the people increased and became even more numerous. And because the midwives feared God, he gave them families of their own.²⁶

This ancient passage illustrates at least two principles: First, that healthy (vigorous) women could safely birth their own babies without intervention most of the time, if allowed to do so. This principle is still true today.^{27,28} Second, the passage reveals that the delivery of babies was a political issue. It, unfortunately, remains so.^{1,3,9,11,29-34}

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Some suggest that maternity care always will be an issue of power and control.^{3,9,13,21,30-32,35}

If these ancient truths persist into our time, then what can we as family physicians learn from this and other lessons of history? How can we apply these lessons in our modern context to examine critically the question "Who should be providing maternity care to women?" A review of our historic roots might assist family physicians to gain both a foundation and a platform for glimpsing into and, we hope, shaping the future of maternity care, or at least maternity care provided by family physicians.

Methods

We searched the medical literature from 1984 to 1994 for the topics of obstetrics, maternity care, family-centered birthing, and family practice education, using our own extensive article files. We sought reasons why family physicians should or should not provide obstetric care, as well as self-reported reasons why students, residents, or physicians chose to provide or not provide obstetric care.

The Past — Person (Patient)-centered Maternity Care

The word *obstetric* originally meant to stand by or to stand with. Until just the last 100 years this care was usually given by women to women.^{28,29,32,34} The word *midwife* means the woman with or the woman beside. Historically these birth attendants used as their therapeutic instruments compassion, caring, experience, patience, listening, and tradition.^{29,32,33} During the last century, however, physicians changed this approach.^{3,11,28,29,32} As an increasing number of trained physicians became available, it was the physician rather than the midwife who was called to assist the laboring woman.^{3,32,33} Thus, the independently practicing woman birth attendant, the midwife, nearly disappeared in North America and in Great Britain.^{3,32} Those midwives who remained became primarily hospital based and controlled by physicians, who were for the most part nearly all men.^{3,29,32}

Recent History — Disease (Physician)-centered Maternity Care

Early in this century labor and delivery, which had always been considered a vital, normal, and natural life event, became defined as a disease or

even a surgical process. A strategy of physician control was needed to manage labor and delivery in such a way as to make the best of expected worst possible outcomes, no matter how improbable these outcomes might be.^{3,9-11,15,27,28,32,34-40}

As a result, maternity care evolved from a female birth-attendant, home-based, family- and community-supported tradition to a predominantly hospital-based, male-dominated religion. We use the term *religion* to mean a practice based primarily on faith. A large part of modern obstetric technique, belief, and technology has been developed and practiced uncritically on childbearing women based on a blind faith that this system would improve outcomes by reducing maternal and neonatal morbidity and mortality.^{37,38,40-44} Did it? Probably not, for critical review reveals that despite wide differences in the application of obstetric interventions, all western countries have experienced a decline in perinatal mortality.^{3,35,44-48} It is now contended that these reductions in maternal and neonatal mortality resulted not from medical intervention alone, but also from improvements in the health of childbearing women, improvements in the sanitary and community health of their communities, and declining birth rates.^{3,43-45}

Reaction of Family Physicians to Obstetric "Technologization"⁴⁰

Family practice as a specialty was born in the late 1960s, in the middle of an exponential growth of technology in obstetrics and neonatology. The philosophy and practice of this technology created a difficult environment for most family physicians in which to learn and practice, so that for the last 25 years family physicians have decreased their involvement in obstetrics.⁴⁸⁻⁵⁵ The primary reasons for this decline have been reported to include malpractice insurance issues (cost and lawsuit risk) and lifestyle issues (personal and professional schedule disruptions). There is growing evidence in the medical literature, however, that these self-reported reasons to abandon or never practice maternity care in family practice might have represented only professionally acceptable excuses to escape from a type of obstetrics that was both very uncomfortable to practice and for reasons that were even more difficult to discuss.^{11,13,14,48-59} Evidence for this concept is supported by studies of family physicians who drop

maternity care because of the cost of malpractice insurance. For these physicians even a substantial reduction in the cost did not stimulate a return to or increase in maternity care in rural family practices.^{58,60} It has been suggested, therefore, that family physicians might have more influential reasons to avoid providing maternity care services, even though these reasons might be more difficult to admit or discuss.^{1-4,9-16,19,54,58-60}

Many of our family practice residents (70 to 80 percent) enter family practice open to, hoping to, or planning to deliver babies, yet by the end of their residencies, anywhere from 50 to 96 percent have chosen not to provide maternity care.^{14,20,27,52-55,61,62} Why do they make this choice? What dilutes and diminishes their initial enthusiasm? Traditionally our specialty has looked outwardly for the reasons. We suggest, along with others, that we look within.^{6,9,11-14,18} We have observed several factors that could serve to demotivate many of our best and brightest from enjoying the many satisfactions of childbirth care:

1. Very often obstetrician-gynecologists, obstetric nurses, and even some of our family practice faculty imply, directly or indirectly, that family physicians have neither the capability nor the proper training to look after pregnant women, especially women in labor.^{3,13,30,63}
2. The routine and uncritical use of technology and intervention in low-risk labor is usually taught by and extensively practiced by obstetricians, who as limited-care specialists often believe that family physicians are not capable of technical or interventional obstetrics.^{3,9,27,28,30,34-40} These beliefs can result in an attitude of "taught helplessness"³ among family physicians toward pregnant patients. In addition, should family physicians choose to practice as "mini-obstetricians"⁹ in their family practices, they might find themselves dissatisfied with a practice style and philosophy that is disease and not patient centered. Alternatively, they might feel the need to receive additional training or obstetric fellowships in interventional obstetrics to avoid feelings of helplessness or discomfort.
3. The elastic and overused term *high-risk* has been manipulated to minimize the chance of

missing even a single high-risk patient (despite overidentifying the majority) and therefore can easily be applied to almost every pregnant woman.^{1,3} As a result, family physicians are frequently told that low-risk can be defined only retrospectively, that is, 6 weeks to 6 months postpartum, effectively extinguishing the idea of normal birth.^{3,63}

4. Mandatory consultations can be used to infantilize family physicians still further.^{3,13,19,20} A privilege to take care of a problem with mandatory supervision is an unfair and unwarranted credentialing control that for the specialty of family practice can result in both procedural impotency and reproductive sterility.^{13,19}
5. Increasingly family physicians are reporting that their obstetric colleagues are refusing to provide backup, consultations, or referrals, therefore causing family physicians either never to start or to stop maternity care services.^{3,31}
6. Finally, family practice as a specialty has allowed its future, its residents and medical students, to be taught normal, routine maternity care by a limited-care specialty that, for the most part, neither understands family practice nor seems to want family physicians to practice maternity care.^{13,30} Academic family medicine has often allowed a near monopoly of inappropriate training for normal labor and delivery care for family physicians. Could these obstetrician-gynecologists, themselves facing a relative oversupply (at least in suburban and noninner city urban areas)³ perceive the family physician as a potential future business competitor?

If these theories contain any truth, as we suspect they do, then it is surprising that so many family physicians continue to provide maternity care and encouraging that the decline in the number of family physicians delivering babies might have passed its nadir.^{61,62,64}

Why Some Say Family Physicians Should Not Do (Physician- or Disease-centered) Obstetrics

Let us review some of the arguments proposed for the belief that family physicians should not provide obstetric care:

1. "Family doctors are not trained well enough to take care of this responsibility."³

This contention might be partly true, for family physicians taught obstetrics by routinely interventional obstetricians or family physicians (usually trained using a maximin-strategy or worst-case^{35,37} philosophy) can be made to feel helpless and incompetent. The "bomb-squad approach"^{1,3,35} to maternity care, which asserts that "every pregnant woman is a time bomb ready to go off and (needs a) bomb disposal squad,"³ is to most family physicians dissatisfying, unsafe, and unsatisfactory, particularly for the provision of routine family-centered maternity care.^{3,11,14,15,40,60,65-82}

If, however, family physicians can be trained either by physicians or midwives who practice "family-centered birthing"¹⁵ and can be trained in more appropriate birthing environments, then they might be better prepared to practice a birthing care that is noninterventional, safe, and satisfying.* To date, all studies of noninterventional maternity care have shown excellent outcomes when compared with routinely interventional techniques.† In addition, many women prefer the expectant approach provided by most family physicians and midwives, which has been called "low-tech, high-touch care."‡ Consequently, we join others^{9,11-13,107} in believing that in most situations family physicians should be taught maternity care by physicians or midwives who believe and practice a family-centered birthing that appropriately uses intervention only when indicated. To continue to utilize maternity care instructors or role models whose obstetric care philosophy is physician and disease centered and whose interventional techniques are potentially deleterious to maternity patients is detrimental to our discipline, our learners, and to our patients and could represent a form of educational malpractice and malfeasance.

2. A fashionable second argument against family physicians participating in maternity care is that "midwives could offer better care than the average family physician, and what midwives cannot do can be done by the obstetrician-gynecologist."^{3,109}

*Refs 10,11,14,15,48,55,67-70,72,73,76,78,79,81,83

†Refs 40,41,46,47,65,66,68-71,80-104

‡Refs 9-11,15,48,67,72,99,105,106

This view, along with the maternity care access problem experienced by rural, inner-city, and underserved populations, has led at least one state to pass special legislation to certify lay midwives to practice in the state's rural areas, even though family physicians are already located in those areas.^{79,109} The provision of most or all rural prenatal care by midwives is a goal that, for a number of reasons, might not be attainable.¹⁰⁹⁻¹¹¹ Is there another option? Would rural family physicians who provide neither prenatal nor intrapartum care provide at least prenatal care if encouraged? One state study has indicated they would if perceived or actual reimbursement, practice protocol, and malpractice insurance cost obstacles could be overcome.¹⁰⁹

In some countries midwives provide most of the obstetric care; however, for many reasons this practice has not yet developed in the United States and is believed by some to be unlikely to develop to any large extent in the near future.^{3,32,33,109,111} Despite the philosophy and skills that midwives bring to maternity care, most are not in private practice, are not located in rural or inner-city areas, usually have no previous knowledge of the woman or her family, and do not provide ongoing care to the newborn child.^{3,109} Unlike family physicians, most midwives are not trained in labor induction or augmentation, vacuum-assisted birth, broad-based medical care, prescribing medications, neonatal resuscitation or intubation, and so on.³ Most family physicians are trained to provide these services, are much more likely to be distributed into areas of actual need, and have excellent perinatal outcomes.^{108,112-114}

That said, we do not believe that rural and inner-city maternity care in the United States can or should be provided only by family physicians or midwives alone, or that all suburban and urban maternity care should be provided by obstetricians only, but that the ideal public policy would plan for and encourage the provision of family- and patient-centered maternity care by skillfully interweaving and valuing each provider group.^{23,33,44,108,109}

3. Perhaps the most uninformed argument is that "family physicians have nothing unique to offer the childbearing woman."³

Evidence from the medical literature would support a view that family physicians have

much to offer women in childbirth.* Studies have revealed that low-risk women cared for by family physicians have equal or better outcomes than do similar women cared for by obstetricians,^{46,47,65,69,70,80-83,92-98} that Cesarean section rates are highest where obstetricians give primary care,^{80-82,104,105,116,117} that family physicians are more likely to provide noninterventional maternity care,^{83,92-99,106} and that family physicians and midwives have similar outstanding outcomes.¹⁰⁸ Furthermore, family physicians provide primary care at a lower cost than do other physicians.¹¹⁸⁻¹²⁰

4. A philosophy often taught to medical students and residents is that "obstetrics is a very risky business, indeed!"^{3,35-37}

Admittedly, maternity care has an element of uncertainty; however, maternal death and serious disability occur rarely in family-practice-attended labor.^{121,122} When perinatal mortality or severe disability does occur, it is usually related to congenital abnormality or other prenatal or environmental or genetic factors over which family physicians have little or no control.^{123,124} Furthermore, those emergent and infrequent intrapartum problems that can and do occur can be managed successfully with easily learned and practiced protocols, such as those used in the Advanced Life Support in Obstetrics (ALSO) course. An ALSO course can increase a learner's or practitioner's confidence and practical skills in infrequently encountered events in much the same way other advanced training courses can, such as Advanced Cardiac Life Support, Advanced Trauma Life Support, Pediatric Advanced Life Support, Neonatal Advanced Life Support (personal communication from James Damos, MD, co-originator of the ALSO course). In addition, family physicians are much less likely to be sued for the obstetric portion of their practices when compared with the nonobstetric portion.^{14,79,121,122}

Why Family Physicians Should Do (Person- or Patient-centered) Maternity Care

Family physicians as a group might have as much or more to offer in providing person-centered

maternity care as any other group of maternity care providers:

1. Based in the community, family physicians are already available in nearly every county of the United States.^{109-111,115,125} Family physicians are specifically trained to understand community needs and to promote provider and facility sensitivity to community concerns, so that health care in general and routine maternity care in particular are humanized.^{1,3,11,12,15,27,75}
2. Family physicians are by the very character of their discipline more tolerant of ambiguity or uncertainty, and by nature and training they have less need to exert control over their patients.^{2,3,9,11,15} These personal characteristics are essential for a thoughtful, rational, and successful approach to birthing.^{15,34,67,72,100,101}
3. Perhaps the most important factor that supports the belief that family physicians have something particular to offer maternity patients is that women are still choosing family physicians to provide care for them during labor.^{1,11,15,33,48,60,75,115,125} In communities where there are enough obstetrician-gynecologists or midwives to care for all of the pregnant women, women continue to ask obstetrically active family physicians to be their physician and their baby's physician.^{3,89} By doing so, these women demonstrate their belief that family physicians have something special to offer. Simply put, family physicians should continue to provide maternity care as long as women continue to choose them for this service.
4. Finally, and most worrisome, family physicians in rural locations, by choosing not to provide maternity care, might be contributing to an increase in the infant death rate. First recognized in rural Indiana,¹¹⁸ evidence now appears in rural Florida that when a family physician chooses not to provide maternity care, this decision is associated with an increased infant death rate (unpublished data from one of our (WLL) research projects). If these data reflect a cause-and-effect phenomena, and if medicine as a profession is truly concerned about maternal-fetal health, then we must insist that family

*Refs 1-5,8-20,23,27,30,38-40,46-48,62,65,67,69,70,73,75,83,92-106,112-115

physicians remain involved in or become involved in birth care, at least in rural and underserved areas.^{23,56,126} Academic family medicine and organized family practice must train, enable, equip, and encourage family physicians to provide maternity care. To not do so is, in our opinion, illogical and unconscionable.

Who Should Provide Maternity Care in the Future?

There are at least six groups who should be involved in providing maternity care in the future.^{1,3,9,126} Each group has its particular strengths, and each group would benefit from working closely and in cooperation with the others:

1. First and foremost are the women who are having babies. They need to be better informed, healthier, and more independent so they can give birth to their children with the kind of support and assistance that they and their families think best.^{3,15,29,67,85,87-91,100} These women must be encouraged, equipped, and enabled, without unnecessary and nonindicated intervention, to complete one of the most essential roles given to them, to birth their children. Any aspect of their care during pregnancy, labor, or delivery "for which safety benefits are small or unproved should remain subject to the choices and preferences of the woman giving birth."¹⁰⁰
2. There will always be a need in the United States for a group of committed, well-trained, adaptable, supportive obstetric nurses who provide care during labor and childbirth. They will need to be particularly adept at recognizing deviations from normal. These coproviders of obstetric care have been trained to step back from the woman and to depend on electronic devices and laboratory tests.^{87,88} They will need to recover their skills of touching, standing-by, and being with. They need to learn, along with family physicians and obstetricians, that being present can often be more important than doing something.⁸⁴⁻⁹⁰
3. The doula, a skilled and experienced laywoman who acts as a support companion, should be an indispensable part of future labor care.⁸⁴⁻⁸⁸ These women of special understanding and talent are committed to encouraging, supporting, and not abandoning women in labor.^{85,88} These community-based servers-observers are usually multiparous women whose main training is experience and whose main qualification is their female sex.^{3,29,88} These women, by their presence and touch, should help reduce the need for Cesarean deliveries, epidural anesthesia, analgesia, and oxytocin, as well as reduce the duration of labor and fetal and maternal morbidity.^{84,85,88} It is possible that there is no more cost-effective or simpler strategy to improve the health of laboring women than using the doula.⁸⁸ It is also possible that obstetric nurses or midwives can provide for or contribute to this doula effect.^{88-91,108}
4. Midwives and family physicians have philosophical and practice styles that are similar and maternity care outcomes that are remarkably similar.^{9,33,108} Some forward-thinkers have encouraged closer working relationships between midwives and family physicians.^{9,33} The potential advantages are numerous and the disadvantages more imagined than real. For family practice residencies struggling to recruit family practice faculty, especially those faculty with an interest and expertise in family-centered birthing, midwives can offer economic, philosophic, and practical benefits. As health system reform in the United States continues to evolve, it appears that midlevel practitioners will play an even greater role. It is past time for family practice as a specialty and family medicine as an academic discipline to assert a leadership position in shifting the paradigm of maternity care to increase collaboration between family physicians and midwives.
5. Consultant specialists, whether obstetrician-gynecologists, perinatologists, anesthesiologists, or neonatologists, will always be needed and valued by family physicians and their patients. Their competence, skills, and special knowledge are vital to primary care physicians. They will, however, need to be sufficiently knowledgeable about and confident in family practice to allow family physicians a place in the delivery of maternity care, particularly for routine maternity care.

6. Finally, there is a growing need for family physicians to manage and coordinate their patients' maternity care: family physicians who will maintain a commitment to humanized family-centered childbirth facilities, who will advise women in labor when intervention might be indicated and when it is not, who will be rooted in the community and attentive to and sensitive to the community's desires and needs, who will be attuned to the difference between what is normal and what is seriously abnormal. They will be knowledgeable in obstetric crisis management; and they will have been trained by family physicians or midwives in a philosophy of noninterventional, patient-centered, not facility-centered, maternity care and birthing based upon the view that birth, a life event, more often than not needs practitioners who are adept at the ancient art of "doing nothing." They will know when it is suitable "to do nothing," and when they are appropriately "doing nothing," will do it well. In fact, they will know how to "do nothing" extremely well.

Family Practice Maternity Care — Will the Endangered Species Be Saved?

If maternity care in family practice is to survive and grow, we need to offer society appropriately trained, caring, family physicians who are by their temperament and training committed to families and to the community. These family physicians will need to be well-educated and confident in their family-centered birthing care skills. They will need to have been trained by physicians and midwives who share, model, and transmit this unique philosophy and these special skills. These physicians will need to understand not only the science of childbirth, but more importantly, they will need to appreciate its art and be alert to the profoundly mysterious, even spiritual nature of birth. Then family physicians could be among the most qualified maternity care providers in the United States. As a result, more women will be enabled to birth, with improved outcomes in terms of maternal, child, family, and community health.

Just as the midwives of ancient Egypt were true to their calling to do what was right rather than what was politically expedient, to do what was right rather than what was convenient, to do what

was right rather than what was expected, so should today's family physicians. As physician descendants of the midwives of old and potential allies and colleagues of the modern midwife, family physicians should restore their commitment to the person-centered delivery of childbirth care, for the sake of the women of today and the children of tomorrow.

Does family practice have a place in future maternity care in the United States? Absolutely! For we believe that without family physicians, maternity care cannot be all that it should be! Despite the exodus of family physicians from maternity care, immediate action by organized family practice, academic family medicine, and individual family physicians could well bring family-centered birthing into the mainstream of family practice in the United States.

Birthing is intrinsic to the formation of the family, and "family medicine without birthing is not family medicine, it is just medicine."¹⁵ The many benefits of maternity care in family practice are being discovered, and the so-called "risks" are being critically reevaluated.*

Family physicians who deliver babies are still an endangered species, but clearly a species in our genus (of family practice) worth saving.^{1,10-15,18} Although this species could survive most anywhere should it decide to do so, it appears to have distinct ecologic niches. Its inherent peaceful nature requires it to be nurtured in appropriately peaceful and supportive environments if it is to be expected to reproduce.¹⁵ After a critical mass has been reached, it will then be possible to release into selected and more difficult areas of the technological medical environment particularly robust and tough-skinned members of the species, so as to expand its niche. Thereafter, there might begin a natural and inevitable spread of this essential and indispensable species across the United States. The members of this species, obstetrically competent family physicians, will be confident in their acceptance and acknowledgment that while birth can never be fully known or understood, it can be experienced with dignity, trust, satisfaction, and joy.

We believe this species has been unnecessarily endangered by acts of both commission and omis-

*Refs 4-5,13-15,20,23,40,72,73,78,79,99,105,106,112,115

sion by physicians both in and out of the specialty. We believe this species is essential to the specialty and is worth saving. We believe that dramatically increasing the population of this species in the United States is valuable to family, maternal, fetal, and child health care in the United States. We believe this species, with the commitment of family medicine educators, can both grow in numbers and disperse geographically. We believe that this species, if abandoned by family medicine educators, will become extinct and the entire genus will be irreparably harmed. We believe that as the species enlarges, family practice as a specialty and a profession will become even more satisfying, diverse, and enriched and that birth will be healthier and more gratifying for those child-bearing women who honor family physicians by choosing us to attend and participate in *their* births.

References

1. Reynolds JL, Klein M. Family practice obstetrics: requiem or renaissance. In: College of Family Physicians of Canada, editor. Family physician as primary health provider: report on multiple roles of the family physician in the Canadian health care system. Mississauga, Ontario: The College, 1993:51-60.
2. Reynolds JL. Family practice obstetrics in teaching hospital. Developing a role. *Can Fam Physician* 1991; 37:1121-4.
3. *Idem*. Who should be doing obstetrics in the 1990s? *Can Fam Physician* 1988; 34:1937-40.
4. *Idem*. Family practice obstetrics: the future is bright. *Can Fam Phys* 1991; 37:1819-20.
5. Thorn L. To do or not to do — obstetrics. *NY Fam Physician* 1992; 44:14-5.
6. David AK. Obstetrics in family practice: a time for decision. *Fam Med* 1991; 23:259,262.
7. Larimore WL, Thorn L. To OB or not to OB? Should you do obstetrics in your family practice? *Fam Pract Resident* 1994; Jan/Feb:31-4.
8. Rosenblatt RA, Cherkin DC, Schneeweiss R, Hart LG, Greenwald H, Kirkwood CR, et al. The structure and content of family practice: current status and future trends. *J Fam Pract* 1982; 15: 681-722.
9. Rosenblatt RA. The future of obstetrics in family practice: time for a new direction. *J Fam Pract* 1988; 26:127-9.
10. Scherger JE. The family physician delivering babies: an endangered species. *Fam Med* 1987; 19:95-6.
11. Klein M. Obstetrics is too important to be left to the obstetricians. *Fam Med* 1987; 19:167-9.
12. Klein M, Reynolds JL, Boucher F, Malus M, Rosenberg E. Obstetrical practice and training in Canadian family medicine: conserving an endangered species. *Can Fam Physician* 1984; 30:2093-99.
13. Rodney WM. Obstetrics enhanced family practice: an endangered species worth saving! *Fla Fam Physician* 1993; 53:8-9.
14. Larimore WL. Assessing the risks and benefits of including obstetrics in family practice. *Fam Pract Recert* 1991; 13(11):18-9,23-4,29.
15. *Idem*. Family-centered birthing: a niche for family physicians. *Am Fam Physician* 1993; 47:1365-6.
16. Hulkower SD. The future of family practice obstetrics. *North Carolina Fam Physician* 1991; Spring:4-8.
17. Driscoll CE. The future of obstetrics in family practice. *Female Patient* 1992; 17(5):11-2.
18. Deutchman ME. A frontier of family medicine. The revival of obstetrics. *Arch Fam Med* 1993; 2:139-40.
19. *Idem*. Obstetrics in family practice. The controversy continues. *Fam Med* 1991; 25:486-7,491.
20. Deutchman ME, Ruane T, Scherger JE, Schwenk T, Zervanos N. Can obstetrical training be optional in family practice residency programs? Presentation. Society of Teachers of Family Medicine 24th Annual Spring Conference. Philadelphia, May 1991.
21. Kruse J, Phillips D, Wesley RM. Withdrawal from maternity care. A comparison of family physicians in Ontario, Canada, and the United States. *J Fam Pract* 1990; 30:336-41.
22. Gordon RJ, McMullen G, Weiss BD, Nichols AW. The effect of malpractice liability on the delivery of rural obstetrical care. *J Rural Health* 1987; 3:7-13.
23. Nesbitt TS, Scherger JE, Tanji JL. The impact of obstetrical liability on access to perinatal care in the rural United States. *J Rural Health* 1989; 5:321-35.
24. Rosenblatt RA, Detering B. Changing patterns of obstetrical practice in Washington State: the impact of tort reform. *Fam Med* 1988; 20:101-7.
25. Rosenblatt RA, Weitkamp G, Lloyd M, Schafer B, Winterscheid LC, Hart LG. Why do physicians stop practicing obstetrics? The impact of malpractice claims. *Obstet Gynecol* 1990; 76:245-50.
26. The Holy Bible. New international version: containing the Old Testament and the New Testament. Exodus 1:15-21. Grand Rapids, MI: Zondervan Bible Publishers, 1978.
27. Scherger JE, Levitt C, Acheson LS, Nesbitt TS, Johnson CA, Reilly KE, et al. Teaching family-centered perinatal care in family medicine, Part I. *Fam Med* 1992; 24:288-98; Part 2. *Fam Med* 1992; 24:368-74.
28. Odent TM. Birth reborn. New York: Pantheon, 1984.
29. King CR. Where is the woman in obstetrics and gynecology? *Pharos* 1989; 52(3):8-11.
30. Kruse J, Phillips DM, Wesley R. A comparison of the attitudes of obstetricians and family physicians toward obstetric practice, training, and hospital privileges of family physicians. *Fam Med* 1990; 22:219-25.
31. Newman A. FPs claim obstetricians refuse to provide backup. *Fam Pract News*, Nov 1, 1992; 22(21): 1,24-5.

32. Leavitt JW. Brought to bed: childbearing in America 1750-1950. New York: Oxford University Press, 1986.
33. Feinbloom RI. A proposed alliance of midwives and family practitioners in the care of low-risk pregnant women. *Birth* 1986; 13:109-13.
34. Fenwick L. Birthing: techniques for managing the physiologic and psychosocial aspects of childbirth. *Perinatol Neonatology* 1984; (3):51-2,55,58-60.
35. Brody H, Thompson JR. The maximin strategy in modern obstetrics. *J Fam Pract* 1981; 12:977-86.
36. Siegler M. Pascal's wager and the hanging of crepe. *N Engl J Med* 1975; 293:853-7.
37. Grimes DA. Technology follies. The uncritical acceptance of medical innovation. *JAMA* 1993; 269:3030-3.
38. Geyman JP. Toward a middle ground in the technology debate in obstetric care. *J Fam Pract* 1981; 12:971-2.
39. Driscoll CE. Obstetrics: the intensivist's domain? *Female Patient* 1990; 15(10):11-2.
40. Stephens GG. The technologizing of obstetrics: who is qualified to deliver babies? *Cont Education Fam Physician* 1979; 10(6):69-77.
41. Tew M. Do obstetric intranatal interventions make birth safer? *Br J Obstet Gynaecol* 1986; 93:659-74.
42. Pomeroy RH. Shall we cut and reconstruct the perineum for every primipara? *Am J Obstet Dis Women Child* 1918; 78:211-20.
43. DeLee JB. Prophylactic forceps operation. *Am J Obstet Gynecol* 1920; 1:34-44.
44. Huntingford P. Obstetric practice: past, present, and future. In: Kitzinger S, Davis JA, editors. *The place of birth: a study of the environment in which birth takes place with special reference to home confinements*. New York: Oxford University Press, 1978.
45. Having a baby in Europe: report on a study. Copenhagen: World Health Organization, 1985.
46. Chalmers I, Lawson JG, Turnbull AC. Evaluation of different approaches to obstetric care: Part 1. *Br J Obstet Gynaecol* 1976; 83:921-9.
47. Klein M, Lloyd I, Redman C, Bull M, Turnbull AC. A comparison of low-risk pregnant women booked for delivery in two systems of care: shared-care (consultant) and integrated general practice unit. I. Obstetrical procedures and neonatal outcome. *Br J Obstet Gynaecol* 1983; 90:118-22. II. Labour and delivery management in neonatal outcome. *Br J Obstet Gynaecol* 1983; 90:123-8.
48. Smith MA, Green LA, Schwenk TL. Family practice obstetrics in Michigan. Factors affecting physician participation. *J Fam Pract* 1989; 28:433-7.
49. Kruse J, Phillips D, Wesley RM. Factors influencing changes in obstetric care provided by family physicians: a national study. *J Fam Pract* 1989; 28:597-602.
50. Medical professional liability and the delivery of obstetrical care. Committee to Study Medical Professional Liability and the Delivery of Obstetrical Care. Washington, DC: National Academy Press, 1989.
51. Professional liability insurance and its effects. Washington, DC: The American College of Obstetricians and Gynecologists. 1985.
52. Smith MA, Howard KP. Choosing to do obstetrics in practice: factors affecting the decisions of third-year family practice residents. *Fam Med* 1987; 19:191-4.
53. Fletcher JL Jr, Schwartz MP. Why family practice residents choose not to practice obstetrics. *J Med Assoc Ga* 1989; 78:559-61.
54. Larimore WL. Attitudes of Florida family practice residents concerning obstetrics. *J Fam Pract* 1993; 36:534-8.
55. Parrish D, Dobratz D, Murphree D. Maternity care in family practice: how can Florida's residency programs increase their graduates' involvement? *Fla Fam Physician* 1993; 53:17-9.
56. Bock GW. Obstetrics in rural family practice. *J Am Board Fam Pract* 1993; 6:87-8.
57. Greer T, Baldwin LM, Wu R, Hart G, Rosenblatt R. Can physicians be induced to resume obstetric practice? *J Am Board Fam Pract* 1992; 5:407-12.
58. Nesbitt TS, Arevalo JA, Tanji JL, Morgan WA, Aved B. Will family physicians really return to obstetrics if malpractice insurance premiums decline? *J Am Board Fam Pract* 1992; 5:413-8.
59. Wall EM. Family physicians performing obstetrics: is malpractice liability the only obstacle? *J Am Board Fam Pract* 1992; 5:440-4.
60. Nesbitt TS, Kahn NB, Tanji JL, Scherger JE. Factors influencing family physicians to continue providing obstetric care. *West J Med* 1992; 157:44-7.
61. Greenberg DM, Hochheiser LI. Family practice residents' decision making regarding future practice of obstetrics. *J Am Board Fam Pract* 1994; 7: 25-30.
62. Nesbitt TS. Family practice residents and future obstetrics practice. *J Am Board Fam Pract* 1994; 7:84-6.
63. Wilson RW, Schiffrin BS. Is any pregnancy low risk? *Obstet Gynecol* 1980; 55:653-6.
64. Young PR. Board news. *J Am Board Fam Pract* 1993; 6:322.
65. Chaska BW, Mellstrom MS, Grambsch PM, Nesse RE. Influence of site of obstetric care and delivery on pregnancy management outcome. *J Am Board Fam Pract* 1988; 1:152-63.
66. Olson CL, Chaska BW, Grambsch PM, Wiltgen CM, Nesse RE, et al. Intrapartum intervention and delivery outcome in low-risk pregnancy. *J Am Board Fam Pract* 1991; 4:83-8.
67. Rooks JP. Low intervention maternity care. *J Fam Pract* 1990; 31:125-7.
68. Lumley J, Davey BA. Do hospitals with family-centered maternity care policies have lower intervention rates? *Birth* 1987; 14:132-4.
69. Mengel MB, Phillips WR. The quality of obstetric care in family practice: are family physicians as safe as obstetricians? *J Fam Pract* 1987; 24:159-64.
70. Franks P, Eisenger S. Adverse perinatal outcomes: is physician specialty a risk factor? *J Fam Pract* 1987; 24:152-6.

71. Rosenblatt RA, Reinken J, Shoemack P. Is obstetrics safe in small hospitals? Evidence from New Zealand's regionalized perinatal system. *Lancet* 1985; 2:429-32.
72. Scherger JE. Family-centered childbirth: a philosophy well-suited to family practice. *Fam Pract Recert* 1989; 11:23-6.
73. Larimore WL. FPs who do obstetrics. *Family Pract News* 1992; 22(8):17.
74. Meyer AA. Obstetrics and family practice: a positive perspective. *J Fam Pract* 1984; 19:397-8.
75. Phillips WR, Sevens GS. Obstetrics in family practice: competence, continuity, and caring. *J Fam Pract* 1985; 20:595-6.
76. Rivers TN. Despite obstacles, obstetrics still worth the trouble. *Priv Pract* 1990; 32:5.
77. Burnett HA 3d, Puffer JC. An inquiry into the decision to practice obstetrics. *Fam Pract Research J* 1986; 5:190-6.
78. Mehl LE, Bruce C, Renner JH. Importance of obstetrics in a comprehensive family practice. *J Fam Pract* 1976; 3:385-9.
79. Larimore WL, Griffin ER. Family practice maternity care in central Florida: increased income, satisfaction and practice diversity. *Fla Fam Physician* 1993; 53:25-7.
80. Lloyd G. Retrospective normality. A comparison of the outcome of pregnancy booked in a GP maternity unit and a GP obstetric unit. *Practitioner* 1975; 214:261-3.
81. Wanderer MJ, Suyehira JG. Obstetrical care in a prepaid cooperative: a comparison between family practice residents, family physicians, and obstetricians. *J Fam Pract* 1980; 11:601-6.
82. Ely JW, Ueland K, Gordon MJ. An audit of obstetric care in a university family medicine department and an obstetrics-gynecology department. *J Fam Pract* 1976; 3:397-401.
83. MacDonald SE, Voaklander K, Birtwhistle RV. A comparison of family physicians' and obstetricians' intrapartum management of low-risk pregnancies. *J Fam Pract* 1993; 37:457-62.
84. Sosa R, Kennell J, Klaus M, Robertson S, Urrutia J. The effect of a supportive companion on perinatal problems, length of labor, and mother-infant interaction. *N Engl J Med* 1980; 303:597-600.
85. Klaus MH, Kennell JH, Robertson SS, Sosa R. Effects of social support during parturition on maternal and infant morbidity. *Br Med J* 1986; 293:585-7.
86. Kennell J, Klaus M, McGrath S, Robertson S, Hinkley C. Medical intervention: the effect of social support during labor. *Pediatr Res* 1988; 23(Suppl):211A. Abstract.
87. Kennell J, McGrath S, Klaus M, Robertson S, Hinkley C. Labor support: what's good for the mother is good for the baby. *Pediatr Res* 1989; 25(Suppl):25A. Abstract.
88. Kennell J, Klaus M, McGrath S, Robertson S, Hinkley C. Continuous emotional support during labor in a US hospital. *JAMA* 1991; 265:2197-201.
89. Hodnett ED, Osborn RW. Effects of continuous intrapartum professional support on childbirth outcomes. *Res Nurs Health* 1989; 12:289-97.
90. Klein R, Gist NF, Nicholson J, Standley K. A study of father and nurse support during labor. *Birth Fam J* 1981; 8:161-4.
91. Bennett A, Hewson D, Booker E, Holliday S. Antenatal preparation and labor support in relation to birth outcomes. *Birth* 1985; 12:9-16.
92. Klein M, Elbourne D, Lloyd I. Booking for maternity care: a comparison of two systems. Paper Number 31. London: The Royal College of General Practitioners, 1985.
93. Krikke EH, Bell NR. Relation of family physician or specialist care to obstetric interventions and outcomes in patients at low risk: a western Canadian cohort study. *Can Med Assoc J* 1989; 140: 637-43.
94. Meyer BA. Audit of obstetrical care. Comparison between family practitioners and obstetricians. *Fam Pract Res J* 1981; 1(1):20-7.
95. Phillips WR, Rice GA, Layton RH. Audit of obstetrical care and outcome in family medicine, obstetrics, and general practice. *J Fam Pract* 1978; 6:1209-16.
96. Reid AJ, Carroll JC, Ruderman J, Murray MA. Differences in intrapartum obstetric care provided to women at low risk by family physicians and obstetricians. *Can Med Assoc J* 1989; 140:625-33.
97. Rosenberg EE, Klein M. Is maternity care different in family practice? A pilot matched pair study. *J Fam Pract* 1987; 25:237-42.
98. Roseveare MP, Bull MJ. General-practitioner obstetrics: two styles of care. *Br Med J* 1982; 284: 958-60.
99. Smith MA, Green LA, Caruthers B. Family practice obstetrics: style of practice. *Fam Med* 1989; 21:30-4.
100. Smith MA, Acheson LS, Byrd JE, Curtis P, Day TW, Frank SH, et al. A critical review of labor and birth care. Obstetrical Interest Group of the North American Primary Care Research Group. *J Fam Pract* 1991; 33:281-92.
101. Smith MA, Ruffin MT 4th, Green LA. The rational management of labor. *Am Fam Physician* 1993; 47:1471-81.
102. Chalmers I, editor. Oxford database of perinatal trials. Version 1.3, Disc Issue 8. New York: Oxford University Press, 1992.
103. Enkin MW, Keirse MJ, Renfrew MJ, Neilson JP, editors. Pregnancy and childbirth module, Cochrane database of systematic reviews. Cochrane updates on disc. Oxford: Update Software, Spring 1993.
104. Applegate JA, Walhout MF. Cesarean section rate: a comparison between family physicians and obstetricians. *Fam Pract Res J* 1992; 12:255-62.
105. Klein M. Canadian family practice accoucheur. *Can Fam Physician* 1986; 32:533-40.
106. Fleming MF. A family physician's approach to obstetrical practice. *Fam Med Rev* 1983; 2(1):25-41.

107. Weiss BA. Teaching family medicine: not dependent enough on family physicians. *Fam Med* 1993; 25: 90-1.
108. Hueston WJ, Rudy M. A comparison of labor and delivery management between nurse midwives and family physicians. *J Fam Pract* 1993; 37:449-54.
109. Larimore WL. Should Florida's family physicians resurrect prenatal care in their practices? *Fla Fam Physician* 1993; 53(1):21-3.
110. McDonald TB, Coburn AF. Predictors of prenatal care utilization. *Soc Sci Med* 1988; 27:167-72.
111. Brown SS, editor. Prenatal care: reaching mothers, reaching infants. Committee to Study Outreach for Prenatal Care, Institute of Medicine. Washington, DC: National Academy Press, 1988.
112. Nesbitt TS, Connell FA, Hart LG, Rosenblatt RA. Access to obstetrical care in rural areas: effect on birth outcomes. *Am J Public Health* 1990; 80:814-8.
113. Black N. Do general practitioner deliveries constitute a perinatal mortality risk? *Br Med J* 1982; 284:488-90.
114. Klein M, Zander L. The role of the family practitioner in maternity care. In: Chalmers I, Enkin M, Keirse MJ, editors. *Effective care in pregnancy and childbirth*. New York: Oxford University Press, 1989:181-91.
115. Allen DI, Kamradt JM. Relationship of infant mortality to the availability of obstetrical care in Indiana. *J Fam Pract* 1991; 33:609-13.
116. deRegt RH, Minkoff HL, Feldman J, Schwartz RH. Relation of private or clinic care to the Caesarian birth rate. *N Engl J Med* 1986; 315:619-24.
117. Klein M. Do family physicians "prevent" Caesarian sections? A Canadian exploration. *Fam Med* 1988; 20:431-6.
118. Starfield B. Primary care and health. A cross-national comparison. *JAMA* 1991; 266:2268-71.
119. Schrijvers AJ. The Netherlands introduces some competition into the health services. *JAMA* 1991; 267:2215-7.
120. Rosenblatt RA. Specialists or generalists. On whom should we base the American health care system? *JAMA* 1992; 267:1665-6.
121. Rosenblatt RA, Hurst H. An analysis of closed obstetric malpractice claims. *Obstet Gynecol* 1989; 74:710-4.
122. Family physicians and obstetrics. A professional liability study. Kansas City, MO: American Academy of Family Physicians, 1987.
123. Hensleigh PA, Fainstat T, Spencer R. Perinatal events in cerebral palsy. *Am J Obstet Gynecol* 1986; 154:978-81.
124. Niswander KR. Quality of obstetric care and occurrence of fetal asphyxia and cerebral palsy. Is there a relationship? *Postgrad Med* 1985; 78:57-60,62,64.
125. Facts about family practice, 1993. Kansas City, MO: American Academy of Family Physicians, 1993.
126. The obstetrician/gynecologist in the twenty-first century — meeting society's needs. New York: Josiah Macy, Jr., Foundation, 1991.