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COMMENTARY

WILEY BIRTH ISSUES IN PERINATAL CARE

Should ACOG support childbirth education as another means to improve obstetric outcomes? Response to ACOG Committee Opinion # 687: Approaches to limit intervention during labor and birth

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The United States cesarean rate rose steadily from 1995, when it was 20.9% to a high of 32.9% in 2009; since then, it has declined to 32.0% in 2015.[1] A similar pattern—decades of increasing cesarean rates followed in recent years by a leveling off—exists in most regions of the world. [2]

Leading organizations in American mainstream maternity care—the American College of Obstetricians and Gynecologists (ACOG), Society for Maternal Fetal Medicine (SMFM), American College of Nurse-Midwives (ACNM), Association of Women's Health, Obstetric and Neonatal Nursing (AWHONN), and others—have called for identification and implementation of evidence-based maternity care practices to further reduce cesarean rates, as well as mortality and morbidity among mothers and infants, ineffective interventions, and costs of care.[3,4] I wrote a commentary in *Birth* on the earlier ACOG/SMFM document, "Safe Prevention of the Primary Cesarean Delivery,"[5] in which I emphasized the need for public (not only professional) acceptance of the suggested reforms. In this commentary on ACOG Committee Opinion # 687, "Approaches to Limit Intervention During Labor and Birth," I propose that the desired reforms will occur to a greater degree with active participation by educated expectant parents.

The recommendations of the Committee Opinion are wide ranging and call for numerous changes and more flexibility in clinical management. Prominent among them is evidence-based advice for caregivers to *slow down and wait* before acting, before admitting women to hospital in latent labor; declaring prolonged pregnancy or arrested labor; intervening with induction, amniotomy, augmentation, instrumental delivery, or cesarean, etc. The passage of time plays an enormous role in most aspects of maternity care.

In my opinion, the Committee seems a bit ambivalent with regard to the contributions that parents could make to improve the odds of success from the recommended measures. They also make questionable assumptions about what women want in their care. The Committee Opinion states, "The desire to avoid unnecessary interventions during labor and birth is shared by health care providers and pregnant women." They also recommend "shared decision-making,"[4] but it is tricky to implement these approaches. First, most women do not have a clear idea of what many interventions are, and whether they are likely to be harmful or beneficial.[6] Not knowing the possible risks, many would be pleased to have labor induced early, because of their discomforts in late pregnancy; others might request or accept a planned cesarean because they see it as a quick and easy alternative to labor. Others, of course, simply trust and depend on their caregivers to make care decisions with little questioning. Listening to Mothers III,[7] a nationwide survey of women's childbearing experiences, found the following:

- Most women trust their caregivers to give good care.
- Yet, caregivers often give inaccurate incomplete information.
- Women usually follow their caregiver's recommendation, but feel they made their own decisions.
- Generally, women are poorly informed.

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Clearly, "shared decision-making" requires education and discussion between caregiver and client, which really must be begun prenatally. It is unrealistic to expect such discussions to take place during the emotional and physical stress of labor. What may be labeled or intended to be "shared" decision-making is often one-way communication—the caregiver expresses a concern, makes a recommendation, and the laboring person agrees.

For truly shared decision-making, parents need information about birth, care options, and the confidence to offer their opinions or express their concerns. Parents also need practical skills in measures to safely maintain or increase comfort and progress in labor—self-help and partner-assisted techniques to use before turning to the obstetric interventions. These skills may prevent or reduce unmanageable pain; fear or panic; slow or arrested progress; fetal malposition; or inadequate contractions. They may also postpone, reduce, or eliminate the need for riskier medical or surgical interventions (which is a goal of ACOG's Committee Opinion # 687).

Appropriate childbirth education has the potential to provide both information and skills for parents. In this

TABLE 1 How can educated parents improve outcomes?

Selected evidence-based recommendations from ACOG, 2017	Challenges for parents (that might be reduced with prior education)	Childbirth education may equip parents to improve outcomes by teaching
No elective induction of labor before 41 or 42 weeks' gestation[3,8]	Discomforts in late pregnancy and a belief that the baby is at term may make parents impatient to end pregnancy and meet baby	-When mature and ready for extrauterine life, fetus usually starts labor with a chain of events led by producing adrenal hormones and end with birth. Until then, the fetus continues to benefit from being in the uterus.[9]
Delay hospital admission till active labor	After hours of contractions at home, many parents, having received little instruction, go to hospital. On arrival, the cervix may not be dilated enough to merit admission; they may be sent home, worried, confused, or angry	-How to time contractions; identify progressing contractions; -Function of prelabor in preparing cervix; -Constructive distracting activities; -How to deal with contractions; -When to go to hospital[10]
Offer choice of expectant management with spontaneous rupture of membranes (SROM) (if Group B Strep negative) and there are no other maternal indications, since induction has no proven advantage	Anxious to end pregnancy, parents may choose to expedite delivery, without knowing the trade-offs involved with induction	-Possible advantages to baby of letting labor begin spontaneously;[9] -Possible increased chance of cesarean with elective induction;[3,8] -Strategies to remain patient during a possibly long prelabor[10]
Admission to hospital, if necessary, for exhaustion, anxiety, or pain in latent labor	With little knowledge of coping techniques, contractions may seem unmanageable. Early admission and epidural increase the risk of duration-dependent side effects (eg, maternal fever, persistent fetal malposition, increasing loss of motor control)[10]	-Value of continuous support, encouragement, guidance by a doula in use of measures for comfort and labor progress[10,11] -Distraction techniques; -Comfort positions; -Massage, heat, cold; -Breathing; relaxation; mental focus; -Companionship (partner) -Patience
Frequent position changes for comfort and fetal positioning	Without knowing the value of movement to labor progress and comfort, laboring person may be unwilling or resistant to moving about	-Before labor, active rehearsal of labor-enhancing positions and movements to use in labour. -Value of a doula to guide parents.
Rest period—1 to 2 h at full dilation for nulliparas with an epidural.[12,14] (Anecdotal reports of a "lull" in contractions in unmedicated latent phase of the second stage)[13]	Parents may be eager to "get on with it" without realizing this pause may be beneficial to parent and infant	-Normalcy and benefit of this rest period before intense pushing begins.[12,14] -Allows the uterus time to contract around the descending baby and cause descent.[13]
No coached pushing in a specific way—woman's choice of open-glottis or prolonged Val Salva pushing[15]	The urge to push is often frightening and disturbing, causing tension, resistance, and ineffective pushing. Without prior rehearsal of positions and pelvic floor release, and reassurance at the time, the second stage can be overwhelming, especially if people are imploring her to push	-Rehearse pushing positions; -Ways that partners can help with positions. -Spontaneous & directed pushing. -Need for reassurance and support at this time. -Few women freely choose prolonged breath holding and straining.[13,15]

commentary, I will discuss those ACOG recommendations for limiting interventions that may be more effective if parents have the knowledge, skills, confidence and encouragement to participate actively with self-help and partner-assisted pain management and labor progress techniques.

Table 1 lists some of ACOG's recommendations that may create difficult challenges for parents, along with suggestions for how childbirth education may equip parents to deal with these challenges.

1 | WHY HASN'T ACOG EMBRACED CHILDBIRTH EDUCATION AS AN IMPORTANT CONTRIBUTOR TO IMPROVED BIRTH OUTCOMES?

I was disappointed that childbirth education was not mentioned in this Committee Opinion. However, ACOG has a reason for not including childbirth education as a contributor to improved outcomes. Evidence from systematic reviews found no clear benefit to birth outcomes from existing trials of antenatal education. A Cochrane Review found nine trials involving 2284 women.[16] The educational content of these programs varied greatly, as did those delivering the curriculum, and no consistent outcomes were measured. This review found a high degree of heterogeneity and a lack of high-quality evidence, and concluded that effects of antenatal education remain largely unknown.

A more recent systematic review focused on outcomes of small classes.[17] It included 17 randomized and quasi-randomized trials. The authors concluded: "Insufficient evidence exists as to whether antenatal education in small classes is effective in regard to obstetric and psycho-social outcomes." The authors recommended "well-conducted randomized controlled trials with a low risk of bias."

These reviews did not conclude that childbirth education has no value. The classes included were inconsistent in the topics offered, their objectives, the total number of hours, the amount of time spent on each topic, and more. Meaningful conclusions were impossible. The content of classes varied, depending on demographics of the students, the goals and objectives of the sponsors, and the points of view of the instructors.

Hospital-sponsored classes may favor practices that are common in that hospital, for example, elective labor induction, intravenous fluids, continuous electronic fetal monitoring, amniotomy, epidural analgesia, episiotomy, and cesarean. Their goal may be to gain parental compliance with "usual care" in that institution, by explaining common practices and offering reassurance of their safety and desirability.[6] Little time or teaching is devoted to choices, comfort measures, and labor support. Classes sponsored by independent individuals or non-hospital-affiliated agencies may be more consumer-oriented, by offering information on normal childbirth, evidence-based discussions of the various care options—their rationale, benefits, and risks. They also tend to encourage parents' participation in decision-making, and teach self-help comfort measures. At times, however, independent courses can put the parents in conflict with the attitudes and usual practices of the hospital—potentially leading them to believe that the institution will honor their choices when they will not. This can create additional stress for the parents during a vulnerable time. The tension between an unbiased ideal childbirth education program and the desires of hospital and maternity care departments has been recently seen in Vancouver, Canada, when the obstetrics department "fired" the educators who were delivering a balanced message, replacing them with their own course that taught basically how to get along in the hospital.

Part of the educator's job should be to inform their classes about those evidence-based practices that are not followed, and to offer guidance for communicating and negotiating effectively with their caregivers about their preferences.[18] While not always successful, respectful adult discussion sometimes results in satisfaction for both sides.

Even without scientific findings from well-designed prospective trials that compare benefits of different approaches to childbirth education, we can still gain useful knowledge by examining findings of published trials of nonpharmacological comfort and labor progress measures and their effects on birth outcomes.[18] Many of these techniques are or can be taught in childbirth classes.

Benefits of specific self-help, partner-assisted, and other nonpharmacological methods have been investigated in systematic reviews[18-25] Here is a list of many nonpharmacologic comfort and labor progress measures that have been studied and found to be safe and at least sometimes or often effective: massage; water immersion; movement, ambulation, and position changes; birth ball and peanut ball; sterile water injections; acupressure; acupuncture; transcutaneous electrical nerve stimulation; relaxation; breathing rhythms; mental imagery; meditation/yoga; hypnosis; music; audioanalgesia; and aromatherapy.[18-25]

By improving pain tolerance and labor progress, these measures reduce the need for surgical and medical interventions. A common finding is that there are few, if any harmful side effects with these measures, and varying degrees of benefit. Therefore, we have indirect evidence that if childbirth education includes explanation and rehearsal of these comfort, labor progress, and self-help measures, outcomes may be improved.

The irony is that many of these skills and techniques are not given priority in many childbirth curricula,[26] which leads me to the following hypothesis, which I hope will be subjected to well-designed evaluation: "If childbirth education includes learner objectives, rehearsal, and information on how, when,

and why to use these evidence-based techniques, parents are more likely to use them during labor than if they only read or are told about them, and undesired birth interventions and outcomes can be reduced, when compared to outcomes for those who do not learn these techniques." The need is urgent for well-designed trials to investigate the best way to ensure that parents can play an effective role in maintaining comfort, progress, and safety during childbirth. Perhaps the first step is for a team of maternity care experts, teachers, and interested parents to investigate and evaluate existing or proposed childbirth education programs for their basis in scientific evidence. They would compare the "best" with "usual" childbirth education, using adequately powered randomized controlled trials. Such an approach would finally clarify the rightful place of childbirth education in maternity care.

2 | CONCLUSIONS

The reforms called for by ACOG and other leading maternity care organizations[3,4] seem to have created renewed investigation, reevaluation, and redirection of long-held principles and practices in maternity care. Based on convincing evidence, the new recommendations may make the elusive goal of a reasonable cesarean rate achievable. I have recommended the addition of two key elements that are missing from the new recommendations: an active role in labor played by the birthing parents, and childbirth education that prepares parents with what they must know to facilitate the birth process, including proven nonpharmacological approaches to pain and progress in labor. Their active participation in the new paradigms of care may dictate how well "the new maternity care" will be embraced.

No one cares more about the health and well-being of mother and baby than the birthing parents. For that reason alone, they should be regarded as valued members of the maternity care team. The knowledge they bring of themselves and their values, and their acquired birth skills are unique contributions that may improve outcomes.

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