The Role of the Childbirth Educator in Supporting Vaginal Birth and Reducing Primary Cesareans: Highlights From the California Maternal Quality Care Collaborative Toolkit

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ABSTRACT

Maternity care organizations, including the American Congress of Obstetricians and Gynecologists, have identified reducing the rate of primary cesarean births as an urgent health-care priority. Particular emphasis is placed on reducing the cesarean rate for nulliparous women who are at term with a singleton baby in the vertex position. The California Maternal Quality Care Collaborative recently published an evidence-based, comprehensive *Toolkit to Support Vaginal Birth and Reduce Primary Cesareans* for this population. This article highlights the recommended strategies from the *Toolkit* of particular interest to childbirth educators.

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INTRODUCTION

With an overall cesarean rate of 32% in 2015 in the United States (Hamilton, Martin, & Osterman, 2016), labor and delivery units across the country are challenged with catastrophic complications such as placenta accreta and massive maternal hemor-

rhage in women who have had a previous cesarean surgery (Smith, Peterson, Lagrew, & Main, 2016). Maternity care organizations, including the American Congress of Obstetricians and Gynecologists (ACOG), have identified reducing the rate of primary cesarean births as an urgent health-care priority (ACOG & Society for Maternal-Fetal Medicine [SMFM], 2014). Particular emphasis is placed on reducing the cesarean rate for nulliparous women who are at term with a singleton baby in the vertex position (NTSV). The tremendous variation in the NTVS cesarean rates at hospitals with

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similar patient populations suggests that it is not the risk level or “type” of patient that is driving the high rates of NTSV cesareans but instead various cultural and clinical components (Smith et al., 2016). The good news is that strategies have been developed by the California Maternal Quality Care Collaborative (CMQCC) and implemented in several California hospitals to substantially reduce the NTSV cesarean rate. The even better news is that the CMQCC has developed the free *Toolkit to Support Vaginal Birth and Reduce Primary Cesareans* (Smith et al., 2016) describing these strategies. Childbirth educators will recognize many of the recommendations as strategies they have been advocating for years. With the prestige and success of the CMQCC, childbirth educators can bring these recommendations to the attention of leaders and decision makers in their own communities to work toward improving maternity care and outcomes for childbearing families.

Toolkit to Support Vaginal Birth and Reduce Primary Cesareans

Concise at only 159 pages, the *Toolkit* was written by a diverse task force of more than 50 experts including obstetricians, midwives, anesthesiologists, childbirth educators, labor nurses, doulas, patient advocates, public health professionals, policy makers, and health-care purchasers. The *Toolkit* relies heavily on the 2014 ACOG and SMFM consensus statement, “Safe Prevention of the Primary Cesarean Delivery” (ACOG & SMFM, 2014), and is supported by District IX of the ACOG and the California section of the Association of Women’s Health, Obstetric and Neonatal Nurses along with many other professional organizations. The primary goal of the *Toolkit* is to facilitate the achievement of NTSV cesarean rates among California hospitals by 2018 to less than 23.9% (the *Healthy People 2020* goal). The current range of NTSV cesarean rates in California is 12%–70% with an average of 26.1%. Childbirth educators and other maternity care professionals can access NTSV cesarean rates for hospitals in their own communities by visiting the *Consumer Reports* website at <http://www.consumerreports.org/doctors-hospitals/your-biggest-c-section-risk-may-be-your-hospital/>.

The *Toolkit* contains an executive summary; five parts, each part identifying a critical domain with key strategies for each domain; 20 appendices

with specific checklists, guidelines, algorithms, and policies; and references. The five domains are the following:

- Part I. Readiness, Improving the Culture of Care, Awareness, and Education
- Part II. Recognition and Prevention: Supporting Intended Vaginal Birth
- Part III. Response: Management of Labor Abnormalities
- Part IV. Reporting and Systems Learning: Using Data to Drive Improvement
- Part V. Success Stories: Lessons Learned from California Hospitals

The *Toolkit* can be downloaded at no cost from <https://www.cmqcc.org/node/3147>. Completing a short questionnaire is required before it can be downloaded.

The *Toolkit* contains a wealth of information and should be required reading for all childbirth educators. This article will focus on the recommended strategies of particular interest to childbirth educators in Part I and Part II of the *Toolkit*.

Part I: Readiness: Improving the Culture of Care, Awareness, and Education

The high rate of cesareans among low-risk nulliparous women means that more healthy women and newborns than necessary are exposed to potential harms with little or no benefit. Nonetheless, in recent years, convincing hospitals, health care providers, and the public of the value of vaginal birth has been difficult. (Smith et al., 2016, p. 25)

For providers, the *Toolkit* Task Force recommends the following three strategies to improve the culture of care, awareness, and education for cesarean reduction:

- Bridge the Provider Knowledge and Skills Gap
- Improve Support from Senior Hospital Leadership and Harness the Power of Clinical Champions
- Transition from Paying for Volume to Paying for Value

Read more about these strategies in the *Toolkit*.

For consumers, the Task Force encourages increased access to childbirth education so that expectant parents understand the benefits of vaginal birth (and risks of cesarean surgery) and are well prepared to participate in informed decision making. They recommend that innovative ways to provide childbirth education such as the “Centering Pregnancy”

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model be expanded. Access to high-quality education can also be increased by removing or decreasing barriers to attendance such as time of day and cost, providing education in nontraditional formats such as high-quality Web content, and providing incentives for attending class.

For the women who do attend childbirth classes (only 50% of pregnant women [Declercq, Sakala, Corry, Applebaum, & Herrlich, 2013]), there is often a disconnect between what is taught in class and what the laboring woman encounters when she is admitted to the labor unit. Women often learn in childbirth classes that medical interventions should be used only when medically indicated, yet many labor units require routine interventions such as continuous fetal monitoring, restrictions on food and fluids, and restrictions on positions and movements. The Task Force notes that “for most low-risk, nulliparous women, few interventions are needed for labor to progress safely and normally” and advocate that routine care in the labor and delivery unit reflects the evidence-based information presented in childbirth classes. Lamaze International is specifically named as an organization that meets high standards for certifying childbirth educators and that provides evidence-based, high-quality resources for both parents and educators on their websites.

For consumers, the *Toolkit* authors also advocate improved shared decision making at five critical decision points:

- Choice of provider and/or facility for prenatal care and care at time of birth
- Timing of admission to hospital (admission to labor and delivery while still in the latent/early phase is associated with an increased risk of cesarean)

... current obstetric care in the United States remains distinctly different from the rest of the world, applying a high-risk model to all women and overusing costly procedures that increase risk. At the same time, current care underutilizes beneficial, low-cost interventions that are readily available, easy to implement, and well-suited for low-risk women.

- Choice of fetal monitoring method (continuous monitoring is associated with an increased risk of cesarean)
- Whether to have continuous labor support by a trained caregiver like a doula (continuous labor support improves chances of having a vaginal birth)
- Induction of labor without medical indication (depending on the provider and facility, induced labor may be associated with higher rates of cesarean)

The *Toolkit* emphasizes that education and communication to promote informed decision making should take place throughout the pregnancy during both prenatal visits and during childbirth classes. The development of a birth plan is encouraged.

It is not uncommon to hear how a woman's Birth Plan is a sure "ticket to the operating room." On the contrary, Birth Plans offer a unique opportunity for providers to engage women in shared decision making early in the prenatal period and to discuss expectations, fears, gaps in knowledge, and specific decision points that may impact a woman's risk of cesarean. (Smith et al., 2016, p. 32)

The Task Force provides sample *Birth Preferences* forms in Appendix E of the *Toolkit*.

Clearly, childbirth educators are fundamental to increasing access to childbirth education, to promoting birth as a normal physiological event, and to preparing parents to make informed decisions.

Part II. Recognition and Prevention: Supporting Intended Vaginal Birth

Nonetheless, current obstetric care in the United States remains distinctly different from the rest of the world, applying a high-risk model to all women and overusing costly procedures that increase risk. At the same time, current care underutilizes beneficial, low-cost interventions that are readily available, easy to implement, and well-suited for low-risk women. (p. 39)

The Task Force identified six barriers to supporting intended vaginal birth:

1. Lack of institutional support for the safe reduction of routine obstetric interventions
2. Admission in latent (early) labor without a medical indication

3. Inadequate labor support
4. Few choices to manage pain and improve coping during labor
5. Overuse of continuous fetal monitoring in low-risk women
6. Underuse of the current treatment and prevention guidelines for potentially modifiable conditions (e.g., breech presentation and recurrent genital herpes simplex virus)

Barriers 2 through 5 are all topics traditionally covered in childbirth classes.

Admission in Latent (Early) Labor. Numerous studies support the conclusion that interventions, including the risk for cesarean surgery, are increased for the low-risk laboring woman when she is admitted to the hospital in early labor. Important topics for childbirth education include the benefits of allowing labor to start on its own and coping strategies and support for early labor at home, even when early labor takes a long time. In addition to promoting admission to the hospital only when labor is well established, the Task Force recommends that hospitals develop a plan for helping women who do need to be sent home in early labor to feel comfortable with this decision and confident about returning home. Excessive fear in early labor is associated with longer labor and increased risks for cesarean surgery (Roosevelt & Low, 2016).

Inadequate Labor Support. Since the beginning of formal childbirth classes in the 1960s, the role of the labor partner in providing support has been a key component of childbirth classes. Today, educators share with their students the impressive research documenting the benefits of having a doula in labor and teach about how the doula and labor partner work together to provide support. The Task Force also recommends staff education in continuous labor support and notes the importance of reducing fear and anxiety to facilitate the release of oxytocin and minimize the release of catecholamines during labor (Buckley, 2015).

Assessment of Pain and Coping. The Task Force discusses the negative effect of using the Numeric Pain Scale (NPS) during labor. Because labor pain is not pathological or the result of an injury and because The Joint Commission does not require the use of the NPS for all patient populations, the Task Force recommends *not* using the NPS in labor and birth. They provide an example of a “Coping with Labor” algorithm

developed by the University of Utah Nursing School in Appendix F of the *Toolkit*. Lamaze members have long had access on the “Professional Resources” section of the Lamaze website for professionals to an “Assessment of Effective Coping During Labor” form developed by Amis and Green in the early 2000s.

Few Choices to Manage Pain. Traditionally, childbirth classes have included learning and practicing nonpharmacological pain management strategies. However, as childbirth courses have decreased in length, sometimes to only 1 day or even less, there may not be enough time to learn and practice these techniques. A recent randomized controlled trial from Australia looked at the effectiveness of providing a special 2-day childbirth course focusing on complementary pain management techniques to reduce the rate of epidural analgesia use. Low-risk, nulliparous women were randomized to either usual care or the experimental 2-day curriculum focusing on complementary pain management techniques (Levet, Smith, Bensoussan, & Dahlen, 2016). Usual care was the hospital-based childbirth education course which included topics such as pregnancy changes, exercise and back care during pregnancy, signs of labor, unexpected outcomes in labor and birth, pharmacological pain management, managing labor and birth, newborn care and breastfeeding, parenthood, and baby’s first weeks. The experimental 2-day course focused on birth as a natural physiological process and included the following tools to help laboring women “work with the pain”:

- Visualization
- Yoga postures
- Breathing techniques
- Massage
- Acupressure
- Facilitated partner support

Researchers found that women in the experimental group were 65% less likely to use epidural analgesia. Remarkably, one of the secondary outcomes was a 44% reduction in cesarean surgery. Other secondary outcomes included reduced rates of augmentation in labor, length of second stage, perineal trauma, and the need for resuscitation of the newborn. The researchers point out that the secondary outcomes may be because of the reduction in use of epidural analgesia. No one complementary technique stood out; having a variety of strategies to use was most helpful. To reduce interventions and

promote normal physiological birth, the authors recommend that childbirth educators relook at the content of their classes. Effective childbirth education should promote birth as a normal physiological event and include enough time to teach and have students practice a variety of nonpharmacological pain management strategies.

Continuous Versus Intermittent Fetal Monitoring.

Research evidence is clear that continuous fetal heart rate monitoring increases cesarean surgeries but does not improve neonatal outcomes. Both the American Academy of Nursing in the national Choosing Wisely campaign (American Academy of Nursing, 2014) and the Task Force recommend intermittent monitoring as the default mode of monitoring for the low-risk laboring woman. Childbirth educators can include these recommendations when they present evidence-based information about common interventions in their classes. There are many written resources available on the Web for educators to give their students to reinforce this message such as the Choosing Wisely pamphlet, *Monitoring Your Baby's Heartbeat During Labor*, available at <http://www.choosingwisely.org/patient-resources/monitoring-your-babys-heartbeat-during-labor/>, and Lamaze's infographic, *Can Good Intentions Backfire in Labor?*, available at <http://www.lamaze.org/blog/electronic-fetal-monitoring>.

Staff Training on Nonpharmacological Pain Management Strategies. The Task Force notes that “neither nurses nor providers are routinely trained in labor support techniques as part of their formal education, nor in the reduction of cesarean birth through the support of physiologic processes” (Smith et al., 2016, p. 44). In addition, they note,

While nonpharmacologic methods have been traditionally associated only with women who desire a “natural” labor, such methods can improve coping for all women, especially those with regional analgesia (epidural) or narcotics who are unable to reach an effective level of relief, women who desire to avoid pharmacologic methods until well into active labor, and women in facilities where 24-hour in-house anesthesia coverage is not available. (Smith et al., 2016, p. 44)

The Task Force recommends staff education on the following nonpharmacological comfort measures:

- Continuous labor support
- Breathing and relaxation techniques
- Touch techniques and massage

- Positions to promote comfort
- Heat and cold therapy
- Hydrotherapy
- Sterile water injections
- Transcutaneous electrical nerve stimulation

In addition, the Task Force recommends education on the following methods to facilitate labor progress:

- Freedom of movement in labor
- Upright and ambulatory positioning
- Techniques and tools (such as the peanut ball) that facilitate fetal rotation, flexion, and descent for women with epidural anesthesia
- Maternal exercises and positioning that facilitate fetal rotation in women with and without epidural anesthesia

Clearly, childbirth educators are ideal candidates to share their knowledge of the stated labor support techniques with labor nurses and providers. Lamaze already does this with their *Evidence-Based Nursing Care: Labor Support Skills* 1-day workshop. Childbirth educators should not only be willing to share their knowledge and skills about nonpharmacological comfort measures with staff and providers but should also evaluate their curricula to make sure that they are providing enough time in class for students to learn and practice these techniques.

Should the laboring woman choose to have an epidural for pain relief, the Task Force does not recommend a delay in placement of epidural analgesia. They do acknowledge that “evidence suggests that placing an epidural later in labor (greater than or equal to 5 cm dilation, or greater than or equal to 0 station) is associated with fewer persistent malpositions” (Smith et al., 2016, p. 47). They recommend that hospital protocols reflect the extended time frames recommended in the 2014 ACOG and SMFM consensus statement for Stage I, Stage II, and induced labors (ACOG & SMFM, 2014). They also recommend allowing for passive descent in Stage II labor.

CONCLUSION

There is much more to this comprehensive, evidence-based *Toolkit*. In Part III, the Task Force discusses appropriate management of labor abnormalities such as labor dystocia, induction of labor, and malpositions. They also discuss professional challenges in work-life balance and liability-driven decision making. In Part IV, the Task Force gets technical in discussing “Reporting and Systems Learning: Using Data to

Drive Improvement.” Part V is especially beneficial as the Task Force shares success stories from California hospitals that have implemented the recommendations in the *Toolkit* to substantially reduce their NTVS cesarean rates. There are 20 appendices with specific checklists, guidelines, algorithms, and policies. Finally, more than 300 references are provided.

Table 1 summarizes the recommendations from the Task Force that are most pertinent to childbirth educators. Childbirth educators are integral to the national campaign to support vaginal birth and decrease primary cesareans. Many of the factors in the Table 1 fall under one of the six healthy birth practices that form the foundation for Lamaze Childbirth Education. All childbirth educators are encouraged to read the *Toolkit* in its entirety and to evaluate their curricula to ensure that they are

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teaching about the key factors that promote normal physiological birth and decrease cesarean surgery. Educators are also encouraged to work with their own hospital and/or hospitals in their communities to adopt the evidence-based recommendations of the *Toolkit*. CMQCC also provides an “Implementation Guide” for the Toolkit on their website with specific recommendations, including a “Top Ten First Steps” to help hospitals get started. Lamaze educators can be proud of Lamaze’s long history of leadership in promoting normal physiological birth and of the participation of several Lamaze members in the development of this groundbreaking *Toolkit*.

TABLE 1
Key Factors That Support Vaginal Birth and Reduce Primary Cesareans (for the Low-Risk Woman)

Midwifery care
Laborist models of care
Transfer policies that safely and efficiently allow for the seamless transfer of care from out-of-hospital to hospital care
Childbirth education that promotes birth as a normal physiological event and that prepares students for shared decision-making
Shared decision-making, especially regarding choice of provider and birth location, timing of admission to hospital, choice of fetal monitoring method, whether to have a doula, and whether to have an elective induction
Birth plan
Physiologic onset of labor
Education and guidance about effective coping skills and support for early labor at home
Admission policies delay hospital admission until labor is well established
Doula support
Support from labor partner and families
Support from nurses and health care providers
Safe, calm physical environment
Availability of tools such as tubs, showers, rocking chairs, birth balls, squat bars, and peanut balls
Availability of snacks with high nutritional value
Intermittent fetal monitoring
Freedom of movement
Encouragement to use a wide variety of nonpharmacologic comfort measures including
Breathing and relaxation techniques
Touch techniques and massage
Positions to promote comfort
Heat and cold therapy
Hydrotherapy
Sterile water injections
Transcutaneous electrical nerve stimulation (TENS)
Encourage to use strategies that facilitate the progress of labor, including
Upright and ambulatory positioning
Techniques and tools (such as the peanut ball) that facilitate fetal rotation, flexion, and descent for women with epidural anesthesia
Maternal exercises and positioning that facilitate fetal rotation in women with and without epidural anesthesia
For the woman with epidural analgesia, assistance in changing position every 20 minutes, extra time for Stage I, Stage II, and induced labors, and encouragement to allow passive descent in Stage II
Patience (adherence to the ACOG/SMFM 2014 guidelines for length of labor)
Movements and positioning to rotate the OP/OT fetus

Table created by the author from: Smith, H., Peterson, N., Lagrew, D., & Main, E. (2016). *Toolkit to support vaginal birth and reduce primary cesareans: A quality improvement toolkit*. Stanford, CA: California Maternal Quality Care Collaborative.

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