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Decreasing the Primary Cesarean Delivery Rate

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
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Abstract

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MSN, University of Cincinnati, 2008

BSN, Norwich University, 2004

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

Cesarean delivery is one of the most frequently performed surgical procedures in the United States with 1 in 3 women giving birth by cesarean section. Nurses play a significant role during the labor and delivery process; yet in a hospital in west Texas, nurses lacked knowledge of the current evidence-based obstetric guidelines that were developed to reduce the primary cesarean delivery rates and associated complications. The purpose of this project was to evaluate the content of educational materials developed to inform obstetrical nurses and midwives about labor support strategies to avoid cesarean delivery. Guided by Knowles's whole-part-whole model, a presentation was developed that included evidence-based guidelines and labor-support strategies for positioning and pain management to decrease the choice of cesarean section when not indicated. A 9-member panel with at least 5 years obstetrical expertise evaluated the materials. Based on a descriptive analysis of questionnaire data, experts had a 100% level of agreement that while the educational program material had the potential to promote nursing care practices that would decrease the number of primary cesarean deliveries, changing clinical delivery practices would likely be met with staff resistance. An evidence-based educational program with preventive strategies to decrease primary cesarean deliveries might produce positive social change by prompting obstetric teams to choose these preferred alternatives to avoid to cesarean delivery, and subsequently, decrease associated complication rates, promote faster maternal recovery after childbirth, and decrease the financial burden on the health care system.

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Dedication

This project is dedicated to my mother and grandmother, who taught me the value of hard work to accomplish your goals and have always encouraged me to pursue my goals.

Acknowledgments

I would like to thank my family and for their support and understanding throughout this journey. My professional colleagues for their flexibility and willingness to help me to complete this project. Finally, I would like to thank my committee chair, Dr. Eileen Fowles, for all of her guidance, encouragement and help to complete this journey.

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Section 1: Nature of the Project

Introduction

Cesarean delivery has become one of the most frequently performed surgical procedures in the United States. "In 2011, one in three women who gave birth in the United States did so by cesarean delivery" (ACOG, 2014). The Center for Disease Control and Prevention (CDC) Vital Statistics Rapid Release stated that "in 2016, the overall cesarean delivery rate has declined for the fourth year in a row to 31.9%, down from 32.0% in 2015" (Hamilton et. al., CDC.gov, 2017). The primary cesarean rate in 2016 was 25.7% which is a slight decrease from 25.8% in 2015 (Hamilton et. al., CDC.gov, 2017). Recently, the American College of Obstetricians and Gynecologists (ACOG) published an Obstetric Care Consensus on Safe Prevention of the Cesarean Delivery (2014), which provides guidance to obstetrical providers on strategies for managing laboring patients and preventing the overuse of cesarean delivery, particularly primary cesarean delivery. In this paper, I discussed the ACOG's recommendations pertaining to decreasing cesarean delivery, the Evidence-Based Birth Failure to Progress hand out, and the California Maternal Quality Care Collaborative (CMQCC) Birth Tools to Promote Vaginal Birth. Potential nursing care strategies that can contribute to decreasing the primary cesarean delivery rate and education nursing staff and midwives about these strategies will be discussed.

Problem Statement

ACOG reported that 1 in 3 women who delivered in the United States did so by cesarean section (ACOG, 2014). In the United States, the cesarean birth rates were 5% in

1970 but have steadily risen drastically over the past few decades, (Thielking, 2015). With the current overall cesarean delivery rate of 31.9%, and 25.7% for nulliparous (first birth) women, there is a need for intervention to decrease this number (ACOG, 2014). Cesarean deliveries are performed due to maternal and fetal indications i.e. breech presentation, placenta previa, maternal request, and abnormal fetal heart rate patterns (ACOG, 2014). Women having cesarean deliveries can develop serious short term and long-term complications like infection, need for subsequent cesarean delivery with future pregnancies, hemorrhage, need for hysterectomy due to uterine atony, urinary incontinence and chronic pain (ACOG, 2014).

Reducing the cesarean delivery rate amongst nulliparous women decreases the likelihood of developing complications that can arise from a cesarean delivery. Reducing the cesarean delivery rate also contributes to a faster recovery after childbirth and decreases the financial burdens on the health care system by decreasing the patient length of hospital stay.

The current staff at the project site were not aware of recommendations published by ACOG to decrease the primary cesarean delivery rate, evidence-based birth practices, or the California Maternal Quality Care Collaborative. These nurses are not members of Association of Women's Health Obstetric and Neonatal Nurses (AWHONN) and were unaware of the current evidence about management of laboring women, and typically follow the directions of the obstetrician or midwife. The majority of the nursing staff have worked at other area hospitals that have a high cesarean delivery rate. Increasing the nurse's knowledge and attitudes towards following labor practices for laboring

women that are consistent with published recommendations from professional organizations could potentially decrease the cesarean delivery rate and allow for better patient experiences, outcomes and a more educated staff.

Purpose

The purpose of this project was to evaluate the content of a staff education program designed to educate the nurses and midwives working in labor and delivery (L&D) on: (a) the current primary cesarean delivery rate, (b) the current evidence to avoid primary cesarean delivery, and (c) labor support strategies that have contributed to reducing the cesarean delivery rate. Currently, nursing staff manage laboring patients in conjunction with the obstetric provider, either an obstetrician/gynecologist (OB/GYN) physician or a certified nurse midwife until delivery. Over the last 14 years working in obstetrical units, I have anecdotally observed that most laboring women are planning a vaginal delivery and, with the help of nurses and midwives who are actively participating in their labor process, are able to achieve a vaginal delivery. However, the need to proceed to a cesarean delivery may develop during labor as a result of maternal and fetal complications. As a DNP student, I have observed that nurses and obstetrical care providers at the project site are not aware of the current evidence-based practice guidelines in OB/GYN. Furthermore, I have noticed that some health care providers do not advocate for the patient's well-being while others are unsure of effective strategies to decrease the patient's risk of having a cesarean delivery.

The practice related question that I answered in this doctoral project was: is the content in an evidence-based staff educational manual outlining strategies to help

decrease the primary cesarean delivery rate appropriate for labor and delivery registered nurses employed within an inpatient hospital in the southern United States?

Nature of the Doctoral Project

The impetus for this staff education doctoral project is the increased rate of cesarean deliveries in the United States. The sources of evidence used to develop content for this educational program were recommendations from ACOG, AWHONN, California Maternal Quality Care Collaborative, and journal articles. The data that I collected for this project consisted of feedback from an expert panel of reviewers on the content and presentation materials in the educational module.

The nursing theory that I used in this doctoral project was the Knowles theory of adult learning (Knowles et. al., 2015). I chose this theory because it "represents a practical methodology for designing learning programs" (Knowles et. al., 2015, 233). The expert panel reviewed the materials, provided feedback and, if necessary, the educational materials were revised.

Significance

The stakeholders in this project are the nursing staff, and midwives working in the labor and delivery unit. When questioned, very few of the nursing staff and midwives were familiar with the ACOG Safe Prevention of the Primary Cesarean Delivery, Evidence Based Birth Website or the California Maternal Quality Care Collaborative Birth Tools to Promote Vaginal Birth located on the AWHONN website. The lack of knowledge of these recommendations has the potential to increase the cesarean delivery rate since the nurses and midwives are not following evidence-based nursing care

strategies for reducing the likelihood of primary cesarean section. Once completed, this staff education project can be used in the L&D unit at the projected site to help educate both new and seasoned nurses, and midwives on nursing care practices that can reduce the cesarean delivery rate. This project has the potential to contribute positive social change by enabling nursing staff, and midwives to support patients in their decision to have a vaginal birth, and to educate the patients on normal labor processes.

Summary

Developing educational materials is needed for nursing staff, and midwives on the ACOG recommendations on Safe Prevention of the Primary Cesarean Delivery, ACOG Approaches to Limit Interventions During Labor and Birth, the CMQCC Birth Tool for Promoting Vaginal Birth on the AWHONN website and the website Evidence Based birth. The potential to provide obstetric nurses OB/GYN physicians and midwives with evidence-based strategies and options may help their patients achieve a vaginal delivery by promoting vaginal births and decreasing primary cesarean deliveries. In the next section, I will discuss the concepts, models, and theories used to evaluate this project along with the relevance to nursing practice and roles myself and the project team had in the development of this project.

Section 2: Background and Context

Introduction

This section includes a review of the literature, concepts, models and theories applied to this project, relevance to nursing practice, local background and context, and the roles of the myself and the project team. ACOG reported that 1 in 3 women who delivered in the United States did so by cesarean section (ACOG, 2014). In the United states, the cesarean birth rates were 5% in 1970 but have steadily risen drastically over the past few decades, (Thielking, 2015). With the current overall cesarean delivery rate of 31.9%, and 25.7% for nulliparous women, there is a need for intervention to decrease this number (ACOG, 2014). The purpose of this staff education project is to educate the obstetrical nurses and midwives on how they can support the patient and help them achieve a vaginal delivery.

Practice Focused Question

The practice related question answered in this doctoral project was: Is the content in an evidence-based staff educational manual outlining strategies to help decrease the primary cesarean delivery rate appropriate for labor and delivery registered nurses employed within an inpatient hospital in the southern United States?

Concept of Staff Education

The definition of staff education is, "teaching of nursing, medication and other members of the health care team; process of assisting staff to gain knowledge, skills, values and attitudes for maintaining and improving competencies" (https://medical-dictionary.thefreedictionary.com/staff+education). The concept of staff education is very

important in healthcare. Evidence-based practice recommendations are changing how nurses and providers practice and if these recommendations are not followed, the patient may not always get the best care available to them. The Journal of Obstetrical, Gynecological and Neonatal Nursing has published many articles on cesarean birth in the recent months, however, very few of the nursing staff at my facility belong to this organization and are unaware of the evidence-based recommendations outlined in these articles.

Importance of Staff Education

When looking at staff education, two areas to focus on are the importance of staff education and methods for providing staff education. McHugh and Lake (2010) stated that "clinical nursing expertise is central to quality patient care" (McHugh & Lake, 2010, 276). When staff provide nursing care that is based on current evidence-based recommendations, patients are likely to experience improved health outcomes and can potentially decrease adverse outcomes.

I have worked with nursing staff who do not know the current evidence-based recommendations for patient care, especially related to caring for the childbearing patient during delivery. Most nurses working in L&D at this site have been in this area for 10–15 years or more, are not motivated to learn about current evidence-based recommendations to decreasing the cesarean delivery rate, or any of the most current practice recommendations. By providing staff educational opportunities, nurses may gain knowledge and skills along with improving critical thinking to help improve patient outcomes (McHugh & Lake, 2010).

Methods for Providing Staff Education

There are many different methods for providing staff education. These include but are not limited to in-person presentations, online educational presentations, cross-straining, simulation training, and journal reviews with completion surveys. Each one of these options has their own benefits and drawbacks and not one method will work for each staff member based on their preferred method of learning. "In-service training includes a set of measures taken to promote empowerment and competency among employees for the better undertaking of the tasks, thus helping the organization achieve its goals" (Chaghari et. al., 2017, 27). For this DNP project, I developed the educational materials designed to provide the staff with in-service training. In-services are a quick way to updated the staff on changes to practice, increase their knowledge base in the skills they have and on ways to improve best practices for fulfilling various tasks and responsibilities, (Chaghari et. al., 2017, 27). When developing educational content and conducting an in-service program, the ability to understand and apply the principles of adult learning is necessary. Adult learning principles suggest that active participation of staff can lead to effective learning and development in their field of work, and self-centered learning is a lifelong learning technique in medical education (Chaghari et. al., 2017).

Participating in clinical simulation exercises benefits all staff. Simulation allows the staff to work as a team to address the "emergency" and provide care for the patient. "Unlike traditional classroom-based learning, simulation is inherently an active educational methodology" (Kobayashi et. al., 2008). It is during this experience where

the nursing staff have demonstrated their knowledge base and know what actions are needed and are able to perform tasks appropriately during an emergency. Simulation-based learning that occurs inside real clinical settings is closely tied to theories of "situated cognition" one form of experiential learning" (Kobayashi et. al., 2008). Although simulation is a great way to educate staff, it is not an option for this education project.

Model

The model to be used for this DNP project was the whole-part-whole (WPW) learning model. I chose this model because it "purports that there is a natural whole-part-whole rhythm to learning" (Knowles et. al., 2015). The first component of this model is *whole* (Knowles, et al, 2015). It has two main purposes, a) "provide a mental scaffolding through advance organizers and b) schemata alignment to prepare learners for the new instruction they will receive and to provide motivation for the participant to want to learn by making the content meaningful and connecting it to the learner" (Knowles, et al, 2015, 235).

The *part* component of this model relies on the standard systematic and behavioristic approach to instruction, (Knowles et. al., 2015, 240). It is in this component that the learner must master all "parts" in order for the second "whole" to be effective (Knowles et. al., 2015).

The final component of this model, *whole* is the most important part of this model and it links the parts back together to form the complete whole (Knowles et. al., 2015). It

is in this component that the learner has complete understanding of the concept that was taught (Knowles et. al., 2015).

This DNP project involved the first *whole* of this approach by including a review of the evidence-based recommendations. It outlined nursing care strategies to promote natural labor and delivery. It reviewed total stats for primary cesarean deliveries and of how changing this thought process affected providers and cesarean deliveries. This project also involved developing educational materials to be delivered in a manner that could motivate the nursing staff to learn about and apply the recommendations.

The *part* of this DNP project was for an expert panel to review the educational materials. They provided feedback on whether the content would provide the staff with the most current recommendations from ACOG, CMQCC Toolkit to Support Vaginal Birth and Reduce Primary Cesareans and Evidence Based Birth on effective strategies. The educational materials included nursing actions to decrease the patient's chance of having a primary cesarean delivery.

The final *whole* was to revise the educational materials based on the expert peer panel review and incorporate with cases studies that demonstrate applications of the recommendations. Using case studies could provide the nursing staff with a communication pathway to advocate for their patients with the provider to help decrease the need for cesarean delivery.

Theory

Knowles theory of adult learning was chosen for this DNP staff education project. This theory was chosen because it "presents core principles of adult learning that in turn

enable those designing and conducting adult learning to build more effective learning processes for adults "(Knowles et. al., 2015, 4). In regard to nursing staff, informal presentations in their work environment has been extremely beneficial in my work area. Due to staffing issues, informal presentations are able to be done daily in the morning huddles, where most staff are present.

Knowles theory has six principles of adult learning: a) learner's need to know, b) self-concept of the learner, c) prior experience of the learner, d) readiness to learn, e) orientation to learning, and f) motivation to learn (Knowles et. al., 2015, 4). The learner's need to know, prior experience of the learner, readiness to learn and motivation to learn were the focus areas of this theory for this DNP project.

For the learner's need to know in this project, was related to how most of the nurses are not familiar at all with the ACOG Safe Prevention of the Primary Cesarean Delivery, CMQCC Toolkit to Support Vaginal Birth and Decrease Primary Cesareans, and Evidence Based Birth. Because these contain recommendations that all L&D staff members should be aware of and should practice but most are not aware of them.

I drew on the prior experiences of nurses to discuss their concerns with the most current evidence recommendations, what their current practice styles have been and what they have seen at other places, i.e. do the providers and staff follow recommendations for decreasing the primary cesarean delivery. Drawing on the previous experiences of others can help to improve communication by giving examples of ways to approach these situations.

The expert peer panel reviewed this presentation and offered recommendations for change to content as well as other areas that should be addressed will help to improve this presentation for the staff. By determining what areas need more focus and others can be shortened as well as areas to add can enhance the learning experience of the nurses. Being able to educate and encourage the nurses to change their processes will take some time but being able to present them with a peer reviewed presentation, may help the change process since it was their peers that reviewed this presentation.

Relevance to Nursing Practice

Primary Cesarean Delivery

The provisional data available from the CDC pertaining to births in 2016 reported a decline in the overall cesarean delivery rate from 32.0% in 2015 to 31.9% in 2016 (Hamilton et. al, 2017). The CDC goes on to state that "the rate of low-risk cesarean delivery, which is delivery among nulliparous, term (37 or more completed gestational weeks), singleton pregnancy, and vertex births declined to 25.7% in 2016 from 25.8% in 2015" (Hamilton et. al., 2017). Healthy People 2020 would like to see a 10% improvement in reducing cesarean births among low-risk women with no prior cesarean birth (baseline 26.5% in 2007, Target 23.9% in 2020; https://www.healthypeople.gov/node/4900/data_details).

I performed a Cochrane Review of the literature through the Walden University Library website using the following search topics: decreasing cesarean delivery rate, primary cesarean delivery and cesarean delivery. One of these topics brought up two articles while the other two did not produce any results. An Army Medical Department

(AMEDD) Virtual Library search resulted with over 400 articles related to cesarean delivery. The review of the current literature showed that there has been an increase in cesarean deliveries throughout the United States over the past 10—20 years (ACOG, 2014). This has been linked to variations in intrapartum practices i.e. not allowing the patient to eat during labor, option of patients to elect to have a cesarean birth, basic hospital admission practices and policies of starting an IV and drawing admission labs (CBC and Type and Screen; Lundsburg et. al., 2017), and how the obstetrical nursing staff can influence the likelihood the patient may have a cesarean birth (Edmonds et. al., 2017). It has also been found that hospitals that have certified nurse midwives in house 24 hours a day have a lower cesarean rate than compared to those that do not have certified nurse midwives (Lundsberg et. al., 2017).

The role of the labor nurse has evolved over the years from being at the bedside and advocating for the patient to the current practice of advocating for the physician. Nurses in the labor and delivery area manage their patient care based on electronic fetal monitoring and strict adherence to hospital policies. Some nurses feel they are now negotiating with the provider to give the patient more time to labor instead of proceeding with a cesarean delivery as well as nurses who are able to influence the physician to just do a cesarean delivery (Sherrod, 2017). There are very few research studies looking at how nursing practices and interventions can impact cesarean delivery rates but when nurses are given the opportunity to provide optimum labor support, they can help reduce the risks associate with birth and the number of unnecessary cesareans (Sherrod, 2017).

The other area that has been identified in the literature is that not all hospitals are following a standard definition regarding indications for cesarean delivery (Lundsberg et. al., 2017). Hospital labor units often do not have standard patient care guidelines to avert a cesarean delivery, while other labor units may allow patients to have an elective cesarean delivery. While supportive obstetrician's individual and personal perspectives on how long a patient should be in labor in lieu of following professional standardized guidelines as well as the patient's input should be included when discussing cesarean birth with the patient.

Content for Staff Education Session

This DNP staff education project, reviewed the ACOG Safe Prevention of the Primary Cesarean Delivery (ACOG, 2014) recommendations that include giving women more time to labor, defining active labor as 6 centimeters in dilation, and length of time given to a patient to make cervical change. I also reviewed the Evidence Based Birth information sheet on Failure to Progress (Decker, 2012), which is a summary of the ACOG recommendations as well as incorporating part of the California Maternal Quality Care Collaborative (CMQCC) Toolkit to Support Vaginal Birth and Reduce Primary Cesareans (Smith et. al., 2016). Including these different resources into my project, may support the nursing staffs understand of the need for a change in nursing care practices and the implementation of these changes.

Local Background and Context

The provisional data available from the CDC pertaining to births in 2016 reported by the state of Texas showed a decline in the overall cesarean delivery rate from 34.5% in 2015 to 34.4% in 2016 (Hamilton, B., et al, 2017). According to Hamilton et. al., (2017), the primary cesarean delivery rates for Texas, decreased slightly from 27.1% in 2015 to 27.0% in 2016, (Hamilton et. al., 2017). As of 2015, National Center for Health Statistics reported that Texas ranks 8th in the US for total cesarean delivery rate at 32.2% (https://www.cdc.gov/nchs/pressroom/states/texas.htm).

The total number of births for 2016 was 1386 with a total cesarean delivery rate in of 23.6% and the primary cesarean delivery rate of 13.06% (current facility's online statistics, 2017). This facility has a staff obstetrician, certified nurse midwife, 5-7 labor and delivery nurses per shift, an anesthesia provider and pediatrician all in house 24 hours a day. If there was a need for an emergent operative delivery, one can easily be facilitated.

Although this facility's cesarean delivery rate is low, there is still a need to educate the staff on ways to decrease the primary cesarean delivery rate. At this facility, I have directly observed the following: a) patients requesting cesarean births while in labor with no indication for cesarean delivery and obstetricians willing to perform the surgery, b) the nursing staff encouraging the obstetricians to do surgery, c) very few providers following the ACOG recommendations for Save Prevention of the Primary Cesarean Delivery, d) lack of staff education on current evidence-based approaches to

decreasing the cesarean delivery rate, and e) poor patient education and counseling about all options to facilitate a vaginal delivery.

Role of the DNP Student

I have been a Certified Nurse Midwife for 9 years. During this time, I have worked at three different US Army Hospitals, two large facilities delivering between 120—250 babies per month and a small facility, delivering about 50-60 babies per month. It was at the small facility that I truly learned that birth was a natural process and the body knows how to get the baby delivered. I am, however, fully aware that some women are unable to have babies vaginally as well as the importance of fetal status during labor which could result in a cesarean delivery for any mother on the unit.

My role in the doctoral project will be to develop the staff education presentation, knowledge surveys that will be completed before and after the educational session and present the most current evidence-based literature recommendations to the staff. I am a staff nurse midwife at my current assignment and have no supervisory role over any of the staff assigned to the Labor and Delivery Unit.

I have been at my current facility since June 2016. There is always a midwife, obstetrician and anesthesia provider assigned to the floor every day. Since arriving at this facility, I have seen and participated as a surgical first assist on multiple cesarean deliveries without fully knowing the reason for proceeding to cesarean delivery. This facility has been following ACOG practice bulletins about allowing social inductions after 39 weeks and cesarean deliveries upon maternal request, something that was not a common practice at either of my last two practices. However, several patients who have

had a cesarean birth have stated they were not given enough time to go into labor, and they did not know the reason behind the need for a cesarean delivery. The nursing staff assigned and working on this Labor and Delivery Unit favor cesarean birth, prefer the patients to have epidurals and remain in the labor bed. In my role as a midwife, I conducted an informal assessment and noted that few of the staff were aware of evidence-based birth practices, the California Maternal Quality Care Collaborative Toolkit to Support Vaginal Birth and Reduce Primary Cesareans, and the ACOG Safe Prevention of the Primary Cesarean Delivery recommendations. Educating the staff on these recommendations may increase the likelihood of having a successful vaginal deliver for the childbearing woman.

Each military treatment facility has its own practice guidelines, some follow national recommendations, some are residency training programs and others are small community hospitals. Each strive to provide the best care possible for all beneficiaries receiving care at their facility however having a protocol to decrease primary cesarean deliveries at each facility would lead to a somewhat standardized way of providing obstetrical care in the military and decreasing our cesarean delivery rate. Thus, showing the rest of the country over time, that when you follow the evidence-based recommendations, they may lead to an overall decrease in the primary cesarean delivery rate.

Role of the Project Team

The project team consisted of a volunteer group of midwives, labor and delivery nurses and OB/GYN physicians that made up the expert peer panel. The minimum

requirement for this group was to have at least five years of experience in Labor and Delivery in their respective role. They were asked to evaluate and provide feedback on the content and appropriateness of the power point presentation and offer any recommendations for improvement.

Summary

In this section I reviewed the concept, model and theory that will guide this DNP staff education project. I reviewed what is known and not known about how to decrease the primary cesarean delivery rate, local background and context of this project, and outlined the roles of the project team. In the next section, I will discuss the sources of evidence, how I will analyze and synthesize the data.

Section 3: Collection and Analysis of Evidence

Introduction

This section includes the practice focused questions, sources of evidence, and analysis and synthesis of data. ACOG reported that 1 in 3 women who delivered in the United States did so by cesarean section (ACOG, 2014). In the United states, the cesarean birth rates were 5% in 1970 but have steadily risen drastically over the past few decades, (Thielking, 2015). With the current overall cesarean delivery rate of 31.9%, and 25.7% for nulliparous women, there is a need for intervention to decrease this number, (ACOG, 2014). The goal of this staff education project was to educate the obstetrical nurses and midwives on how they can support the patient and help them achieve a vaginal delivery.

Staff education can help to decrease the primary cesarean delivery by providing obstetrical nursing staff and midwives the most current evidence-based literature recommendations. This gives the support when advocating for the patient and also allows for patients to be assured that the obstetrical team is working with the patient to achieve a vaginal delivery, instead of engaging in actions that could lead to a cesarean delivery.

Practice-focused Question(s)

The practice related question to be answered in this doctoral project was: is the content in an evidence-based staff educational manual outlining strategies to help decrease the primary cesarean delivery rate appropriate for labor and delivery registered nurses employed within an inpatient hospital in the southern United States?

The evidence collected will help to support development of educational materials designed to guide obstetrical providers caring for laboring patients. It allows staff to advocate for their patient prior to the patient having a cesarean delivery and encourages use of fewer interventions in labor. It also will increase patient education given by all staff in regards to a normal labor process.

Operational definitions for this project are:

Cesarean Delivery: "a surgical procedure in which a fetus is delivered through an incision in the mother's abdomen and uterus" (ACOG, 2015)

Failure to progress: prolonged labor that lasts longer than 20 hours, (Decker, 2012).

Active labor: defined by ACOG as 6cm or more dilated (ACOG, 2014)

Sources of Evidence

The primary sources of evidence used to develop this staff education program to address decreasing the primary cesarean delivery rate were: a) ACOG Safe Prevention of the Primary Cesarean Delivery obstetrical care consensus, (ACOG, 2014), b) the CMQCC Toolkit to Support Vaginal Birth and Reduce Primary Cesareans, (Smith et. al., 2016) and c) evidence-based birth Failure to Progress handout (Decker, 2012). These sources are quick references for the obstetrical team to review and follow when caring for laboring women. These quick references are not being utilized on the L&D unit and most staff are not aware these references existed.

Other evidence will be formative feedback from the project team on the appropriateness and accuracy of the educational program materials, such as PowerPoint

Presentation, and handouts. The project team may offer other sources of evidence that would be considered when updating the project prior to presenting it to staff.

IRB approval for this project through Walden University's IRB section was obtained (IRB Protocol 10-16-18-0567275).

Analysis and Synthesis

I completed the PowerPoint presentation, peer feedback questionnaire, and consent forms that the expert peer panel received. This allowed for standardization of the information the participants received and would receive when this presentation is done on the unit. The participants (CNMs, OBs, RNs) reviewed the presentation, answered feedback question and offered recommendations for improvement. The participants were given 2 weeks to review the presentation and submit their responses to the feedback questionnaire either via email or print out and write responses. All responses were anonymous and did not have any individual identifying information.

Summary

Providing the obstetrical nursing staff and midwives a staff in-service on decreasing the primary cesarean rate with the current evidence-based literature and current de-identified data in our facility will allow them to recognize ways to help a patient achieve a vaginal delivery and may subsequently lead to a decrease in the cesarean delivery numbers. In-services are a quick way to educate the staff on a specific topic and the updated practice recommendations to improve patient outcomes.

Section 4: Findings and Recommendations

Introduction

This section includes a review of the results from the expert peer panel that reviewed this staff educational materials. ACOG reported that 1 in 3 women who delivered in the United States did so by cesarean section (ACOG, 2014). In the United states, the cesarean birth rates were 5% in 1970 but have steadily risen drastically over the past few decades, (Thielking, 2015). With the current overall cesarean delivery rate of 31.9%, and 25.7% for nulliparous women, there is a need for intervention to decrease this number (ACOG, 2014). The goal of this staff education project was to educate the obstetrical nurses and midwives on how they can support laboring women and help them achieve a vaginal delivery.

Practice-focused Question(s)

The practice related question to be answered in this doctoral project is as follows: is the content in an evidence-based staff educational manual outlining strategies to help decrease the primary cesarean delivery rate appropriate for labor and delivery registered nurses employed within an inpatient hospital in the southern United States?

Sources of Evidence

The sources of evidence used to guide the development of the educational materials were ACOG recommendations for decreasing primary cesareans, CMQCC recommendations and Evidenced Based Birth handout. I also included journal articles from the Journal of Nurse Midwifery and Women's Health, the Journal of Obstetric,

Gynecologic and Neonatal Nurse's as well as position statements from ACOG and American College of Nurse Midwives (ACNM) concerning the ARRIVE Trial results.

I created a PowerPoint presentation that was given to a panel of obstetric healthcare providers who volunteered to participate in this review. Two OB/GYNs two CNMs, and five registered nurses (RNs) working in L&D volunteered to participate in this project. All participants had a minimum of 5 years of clinical practice in Labor and Delivery. I sent email messages to the participants that included a consent form, PowerPoint presentation to review and ten question presentation survey.

Findings and Implications

The initial content for this educational module can be seen in Appendix A. I incorporated the content into a PowerPoint presentation that could be used by multiple organizations to provide nursing staff in-service education on evidence-based recommendations and nursing actions designed to reduce the likelihood of primary cesarean section.

The presentation was distributed electronically to members of the expert review panel and their feedback was returned to me electronically. The responses were reviewed and summarized. The following chart lists all of their responses to the feedback questionnaire, RNs (Table 1) then CNMs and OB/GYNs (Table 2).

Table 1

RN Responses

Question	RN 1 (5-10yrs experience)	RN 2 (11-20ys experience)	RN 3 (5-10yrs experience)	RN 4 (11-20yrs experience)	RN 5 (11-20yrs experience)
1. Does the PowerPoint presentation promote ways the staff (RN, CNM/CM/OB/GYN) Can help decrease primary cesareans?	Yes	Yes	Yes	Yes	Yes
2. What information in the presentation did you like?	I like the statistics and new guidelines being used for active labor and arrest of descent	I appreciated the information on ways to help decrease the cesarean rate	Presentation was clear and simple information to understand	The evidence-based recommendations	All of the ACOG Guidelines
3. What information in the presentation did you not like?	It was all useful information	I didn't like the information about the cesarean rates in the US. Especially the fact that Texas ranked #7 in c/s deliveries.	No complaints	The recommendation by the ARRIVE Trial to induce all healthy women at 39 weeks	None, it was all good information
4. What challenges do you perceive may be faced implementing some of the recommendations from ACOG, Evidence Based Birth and the California Maternal Quality Care Coalition?	Some providers will not give patients the time they need to labor naturally. Providers will also admit patients too soon without taking bishop scores into consideration.	I think the providers, especially doctors will be a challenge because doctors have a history of being resistant to change.	Challenges beyond provider control, such as chorio, non-reassuring fetal heart tones, maternal exhaustion	Providers are stuck in their ways and don't want to listen to the latest research	We already have these implementations now and are working well

(table continues)

Question	RN 1 (5-10yrs experience)	RN 2 (11-20ys experience)	RN 3 (5-10yrs experience)	RN 4 (11-20yrs experience)	RN 5 (11-20yrs experience)
5. Was the education on decreasing the primary cesarean delivery rate appropriate?	Yes	Yes	Yes	Yes	Yes
6. What other recommendations do you have that can potentially decrease the primary cesarean delivery rate?	Admitting patients with good bishop scores. Admitting patients when they are not in active labor.	Educate patients and encourage them to be more assertive in their plan of care.	Minimal cervical checks. From experience, we see the cervix can swell from excessive cervical exams, possibly causing chorio and increase in maternal temperature causing fetal heart rate to increase and be tachycardia causing category II tracings.	Longer pushing times. Wireless fetal monitors	Good communication between the whole team
7. What commends to you have on the appropriateness of the content of this educational project?	The content was very appropriate and informative.	I believe it was appropriate and important. I believe we should empower nurses, midwives and physicians to advocate for the patients.	I thought the presentation was well put together	None; it was very appropriate	It was a good refresher and good information
8. Is there any other recommendations that should be added to the content of this presentation?	No	More education for all parties involved with patient care to include the patient and family members.	No	None that I can think of.	No

Table 2

CNM and OB/GYN Responses

Question	CNM 1 (11-20yrs experience)	CNM 2 (11-20yrs experience)	MD 1 (11-20yrs experience)	MD 2 (5-10yrs experience)
1. Does the PowerPoint presentation promotes ways the staff (RN, CNM/CM/OB/GYN) Can help decrease primary cesareans?	Yes PowerPoint presentation does promote the staff in ways to decrease primary cesareans	Yes	Yes	Yes
2. What information in the presentation did you like?	I liked ACOG recommendation for first and second stage management	Evidence based birth graphic	The definitions chart	I really like the ARRIVE trial
3. What information in the presentation did you not like?	The California MQCC, was not sure what MQCC stood for and would like more information on the toolkit	Nothing	n/a	I don't like that it implies that there is an implication that Nurse Midwives are the ones responsible for the reduction in C/S. It could be that after the labor curve was redefined, and subsequently Consensus opinions were released, training institutions started teaching their residents the most up to date information. Subsequently those recently trained residents are now in practice, making an impact on the reduction of cesarean section. Additionally, the Consensus recommendation are difficult to apply to a patient with one or two prior cesarean sections.

(table continues)

Question	CNM 1 (11-20yrs experience)	CNM 2 (11-20yrs experience)	MD 1 (11-20yrs experience)	MD 2 (5-10yrs experience)
4. What challenges do you perceive may be faced implementing some of the recommendations from ACOG, Evidence Based Birth and the California Maternal Quality Care Coalition?	Having the OB doctors change their way of practice and follow new recommendation	Physician resistance to change, nursing lack of education on physiologic birth	Change is always difficult	Old time doctors that are not up with the times. It would also be difficult to implement in facilities that do not have in-house physicians or anesthesia.
5. Was the education on decreasing the primary cesarean delivery rate appropriate?	Yes, it was appropriate	Yes	Yes	Yes
6. What other recommendations do you have that can potentially decrease the primary cesarean delivery rate?	To have the women feel supported and empowered during their labor with good family/friend's support	Widespread adoption of midwives that support physiologic birth	None	Having a laborist model, encouraging patients to have support person (doula)
7. What commends to you have on the appropriateness of the content of this educational project?	I think this educational project is very important in the management of women to help with the continued goal of decreasing c-sections in the US	If this was an actual presentation to educate healthcare providers, many more details need to be included though this is a good overview of professional recommendation	Very well done, great information	Good refresher on management induction of labor.
8. Is there any other recommendations that should be added to the content of this presentation?	I think the content was appropriate for this presentation	None	None	Slide 5, "Safe Prevention of the Primary Cesarean Delivery" is an Obstetric Care Consensus developed by ACOG and SMFM, published in 2014 and reaffirmed in 2016 (not a PB). Further slides should accurately say "Consensus

The findings of this expert peer-reviewed project showed that all participants felt that the presentation promoted strategies for staff to follow to decrease primary cesarean deliveries. The reviewers felt the list of definitions was appropriate; however, they felt that implementing the recommendations could be challenging because change in practice is sometimes met with resistance. While all participants felt the presentation was informative, one CNM felt that if this was to be presented to staff, more details should be included. One OB/GYN physician did not feel that having CNMs on the floor would lead to decreasing the cesarean rate. These findings were unexpected as was a nurse mentioning they knew the ACOG recommendations but observed that they are not being followed on the L&D unit.

Limitations

Limitations to this project were the small number of peer panel reviewers. There were more RNs than providers reviewing this presentation and some personal bias by participants was placed in reviewing the presentation.

The implications of this peer reviewed presentation are that education is needed outlining actions that all providers (RN, CNM, OB/GYNs) can take to help decrease the primary cesarean delivery rate at this facility. Education is needed at all levels regarding what the current evidence-based recommendations are and how they can be implemented in this facility. Once changes are implemented, the primary cesarean rate should decrease.

Recommendations

Based on the expert peer panel review of this presentation, having a provider, if not myself, do an in-service to the staff on ways to decrease the primary cesarean delivery rate should be done. The next step would be to involve the leadership and look at the California Maternal Quality Care Coalition recommendations on how to achieve a vaginal delivery to determine if any of these could be implemented into this facility as well as develop a unit policy on management of laboring patients. Improving communication within the delivery team as well as fostering a patient centered approach to their labor and delivery can help all parties involved understand the current process, and offer recommendations if issues arise to facility a vaginal birth.

Strengths and Limitations of this Project

The strength of this project is that decreasing the primary cesarean delivery rate is a current and important topic of discussion in almost all hospitals providing obstetrical care. There are now educational materials or programs available at the project site that addresses recommendations and strategies to decrease the primary cesarean rate. This project, if accepted by the unit leadership, could be incorporated into the online education that all L&D staff must complete at least once while working on the unit and provide updates to this course.

The limitation of this project is that the focus was at a large facility where staff report they know the recommendations but do not follow them. This project was not met with resistance, but one RN mentioned that they knew about the evidence-based birth handout but could not locate the handout on the unit. The RNs also have their own

personal bias on how the patient should deliver and that having a cesarean birth is something that should be expected because most have worked in the local hospitals where the cesarean rate is higher than the national average.

Summary

In this section I reviewed the results of this study, the strengths and limitations of this project, and recommendations. Decreasing the primary cesarean delivery rate will need a multifaceted team approach to determine if the recommendations can be implemented. Implementing the recommendations will likely involve a change in the culture of the current unit in order to see the primary cesarean rate decrease.

Section 5: Dissemination Plan

Dissemination

Dissemination of this DNP project serves to advance nursing practice and improve patient outcomes not only at the practicum site but other sites I may work at in the future. Decreasing the primary cesarean delivery rate is part of Healthy People 2020 (https://www.healthypeople.gov/node/4900/data_details) and there are multiple resources available to facilities to assist in decreasing the cesarean delivery rate. Providing the obstetrical staff with the most current evidence-based recommendations for decreasing the primary cesarean delivery rates can guide the development of unit policies and improve communication between providers, nursing staff, and the patient. By following the whole-part-whole method, educational programs could be developed to enable the staff to recognize what they know, show them what they may not know and then how to implement the new knowledge to help decrease the primary cesarean delivery rate. The lessons learned can be applied to direct patient care since women are laboring and delivering every day. The presentation will be given by one of the providers or myself to all staff assigned to the L&D unit as a quick in-service during a few of the upcoming staff/provider meetings provided the administration agrees to having this presented. Once completed, it can be put in the online hospital education system to help educate new staff working in L&D.

Analysis of Self

Health care is forever changing, and practice recommendations are frequently made in the OB/GYN area. Implementing practice recommendations improves nursing

practice and leads to better patient outcomes. The journey to earn a DNP has definitely changed my decision-making process as well as how I practice as a certified nurse midwife. As a CNM, I have worked in large medical centers as well as small facilities and both have different ways of managing laboring patients. In the larger facilities, I was taught a medical model, and "rushing" delivery is a common occurrence with higher cesarean numbers. A smaller facility showed me that birth was a natural process and that it may take more time for mothers to deliver and they should not be on a time clock for delivery.

Developing this scholarly project has contributed to my current knowledge of what one can do to help decrease the primary cesarean delivery rate and what organizations are doing to help support this cause. In my area of nursing, most mothers are trying to avoid a surgical delivery, although sometimes it is not preventable. At one of the smaller facilities, I was able to directly see how the ACOG Safe Prevention of the Primary Cesarean Delivery was followed and how it decreased the primary cesarean delivery rate. I did not/have not seen this being followed at larger facilities which is what lead me to doing a presentation on these recommendations.

My long-term professional goals involve continuing to evaluate and implement evidence-based recommendations to improve patient care. I plan to move from the bedside to more administrative clinical roles or into an educator role in the future.

I faced challenges when applying for IRB approval due to restrictions imposed in a military facility. Additionally, I have been challenged by unanticipated work schedules for both inpatient and outpatient areas and an impending transfer to another post. Besides

these challenges, completing discussion board questions caused me more stress than helping me complete this project. The insights I have gained in this process have been that completing this process takes time, not to get discouraged, try to stay focused on the end goal, and know that you are improving patient outcomes by implementing evidence-based recommendations.

Summary

Providers working in obstetrics need to be aware of current evidence-based recommendations related to preventing the primary cesarean delivery. Patients should be given every opportunity to labor and have a safe vaginal delivery unless there is a need for a cesarean delivery. This DNP project will allow staff members to have a better understanding of what current recommendations are to prevent primary cesarean deliveries, encourage them to advocate for their patients and all them to provide the necessary education their patient may need to achieve a vaginal delivery. The qualitative feedback from the expert peer panel members showed the project would help to decrease the primary cesarean delivery rate at this facility as well as other facilities providing obstetrical care and delivery.

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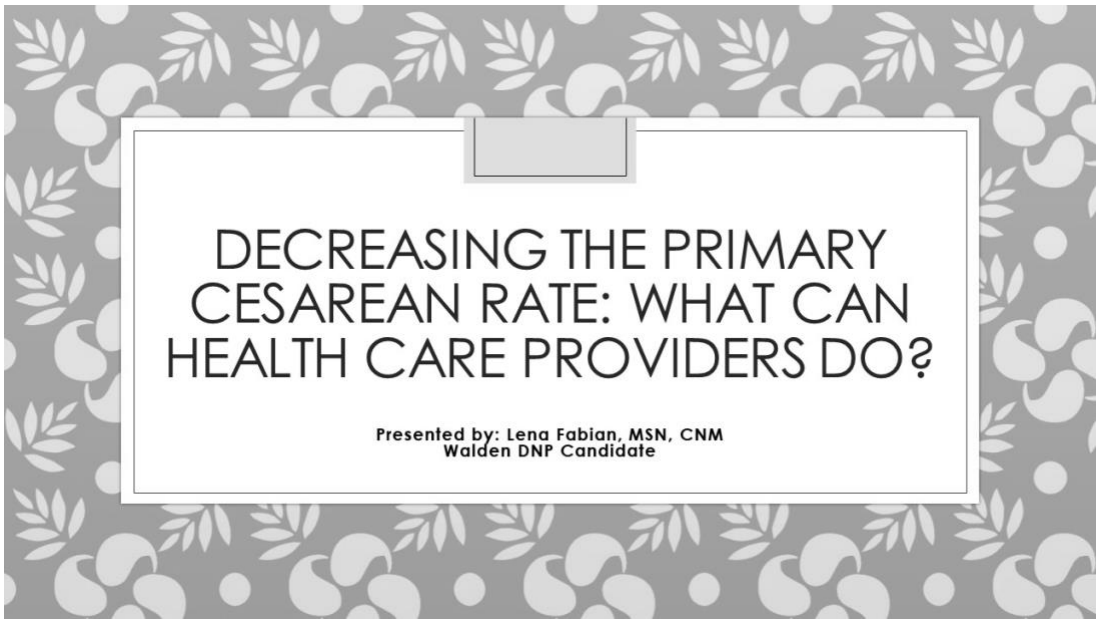
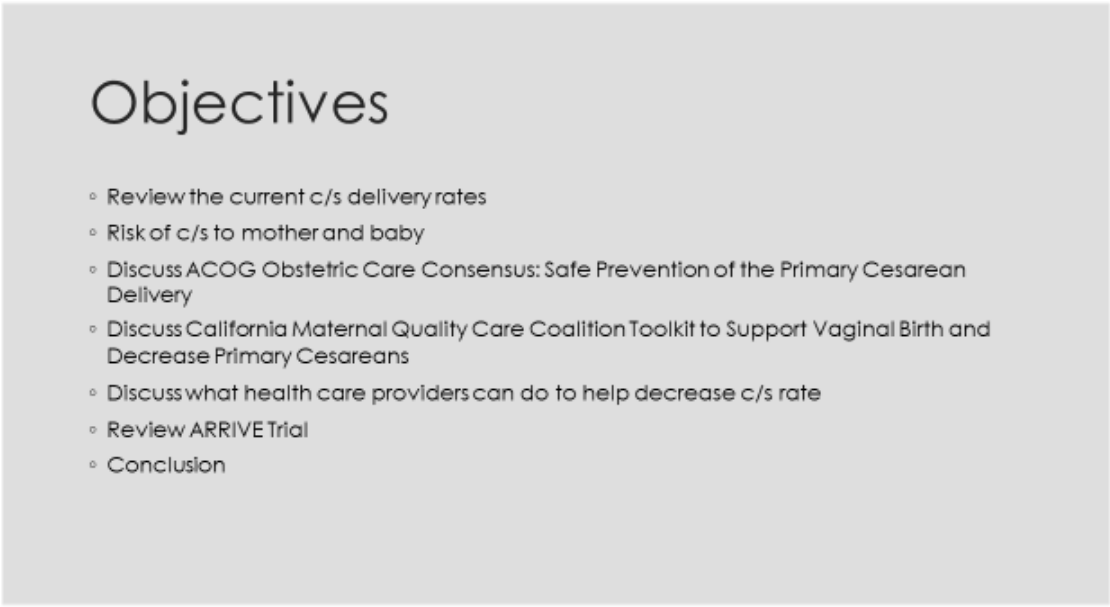
Appendix A: PowerPoint Presentation





Current Rates of Cesareans in the US

- Total Cesarean delivery rate in 2016—31.9% (both primary and repeat cesarean deliveries) (Hamilton, et. al, 2017)
  - Has been decreasing over the past four years (2015—32.0%)
- Total Primary Cesarean delivery rate in 2016—25.7%
  - Decreased from 2015 rate of 25.8%
- According to the CDC, the number of cesarean deliveries increased by 60% between 1996-2009.
- Texas ranked #7 in 2016 for total percentage of cesarean deliveries at 34.4%, which is above the national average of 31.9%.

Risks to Mother with C/S

- Infection
- Prolonged hospitalization
- Increased pain and fatigue
- Complications with anesthesia
- Delayed and difficulty breastfeeding
- Maternal death
- Subsequent cesarean births
- Longer recovery time
- Uterine rupture
- Bowel/bladder injury
- PTSD, bonding issues, postpartum anxiety and depression

Risks to Baby with C/S

- Higher NICU admissions
- Longer stay in NICU
- Difficulty breastfeeding
- Higher risk of respiratory distress
- Increased risk of asthma requiring hospitalization and inhaler use in childhood

ACOG Obstetric Care Consensus

- The American College of Obstetricians and Gynecologists published an obstetric care consensus titled "Safe Prevention of the Primary Cesarean Delivery" in 2014.
  - Came about due to rapid increase in cesarean birth rates from 1996 to 2011 without clear evidence of concomitant decreases in maternal or neonatal morbidity or mortality raised significant concern that cesarean delivery was being overused (ACOG 2014).
  - Outlines 18 clinical strategies to reduce unnecessary cesarean deliveries, listed in the next few slides

ACOG Recommendations

First Stage of Labor

- A prolonged latent phase (eg, greater than 20 hours in nulliparous women and greater than 14 hours in multiparous women) should not be an indication for cesarean delivery.
- Slow but progressive labor in the first stage of labor should not be an indication for cesarean delivery.
- Cervical dilation of 6 cm should be considered the threshold for the active phase of most women in labor. Thus, before 6 cm of dilation is achieved, standards of active phase progress should not be applied.

ACOG Recommendations (cont.)

First Stage of Labor (cont.)

- Cesarean delivery for active phase arrest in the first stage of labor should be reserved for women at or beyond 6 cm of dilation with ruptured membranes who fail to progress despite 4 hours of adequate uterine activity, or at least 6 hours of oxytocin administration with inadequate uterine activity and no cervical change

ACOG Recommendations (cont.)

Second stage of labor

- A specific absolute maximum length of time spent in the second stage of labor beyond which all women should undergo operative delivery has not been identified.

- Before diagnosing arrest of labor in the second stage, if the maternal and fetal conditions permit, allow for the following:
  - -At least 2 hours of pushing in multiparous women
  - -At least 3 hours of pushing in nulliparous women

- Longer durations may be appropriate on an individualized basis (eg, with the use of epidural analgesia or with fetal malposition) as long as progress is being documented.

ACOG Recommendations (cont.)

- Operative vaginal delivery in the second stage of labor by experienced and well trained physicians should be considered a safe, acceptable alternative to cesarean delivery. Training in, and ongoing maintenance of, practical skills related to operative vaginal delivery should be encouraged.

- Manual rotation of the fetal occiput in the setting of fetal malposition in the second stage of labor is a reasonable intervention to consider before moving to operative vaginal delivery or cesarean delivery. In order to safely prevent cesarean deliveries in the setting of malposition, it is important to assess the fetal position in the second stage of labor, particularly in the setting of abnormal descent.

ACOG Recommendations (cont.)

Fetal heart rate monitoring

- Amnioinfusion for repetitive variable fetal heart rate decelerations may safely reduce the rate of cesarean delivery.
- Scalp stimulation can be used as a means of assessing fetal acid–base status when abnormal or indeterminate (formerly, non-reassuring) fetal heart patterns (eg, minimal variability) are present and is a safe alternative to cesarean delivery in this setting.

Induction of labor

- Before 41 0/7 weeks of gestation, induction of labor generally should be performed based on maternal and fetal medical indications. Inductions at 41 0/7 weeks gestation and beyond should be performed to reduce the risk of cesarean delivery and the risk of perinatal morbidity and mortality.

ACOG Recommendations (cont.)

Induction of labor (cont.)

- Cervical ripening methods should be used when labor is induced in women with an unfavorable cervix.

- If the maternal and fetal status allow, cesarean deliveries for failed induction of labor in the latent phase can be avoided by allowing longer durations of the latent phase (up to 24 hours or longer) and requiring that oxytocin be administered for at least 12–18 hours after membrane rupture before deeming the induction a failure.

ACOG Recommendations (cont.)

Fetal malpresentation

- Fetal presentation should be assessed and documented beginning at 36 0/7 weeks of gestation to allow for external cephalic version to be offered.

Suspected fetal macrosomia

- Cesarean delivery to avoid potential birth trauma should be limited to estimated fetal weights of at least 5,000 g in women without diabetes and at least 4,500 g in women with diabetes. The prevalence of birth weight of 5,000 g or more is rare, and patients should be counseled that estimates of fetal weight, particularly late in gestation, are imprecise.

ACOG Recommendations (cont.)

Excessive maternal weight gain

- Women should be counseled about the IOM maternal weight guidelines in an attempt to avoid excessive weight gain.

Twin gestations

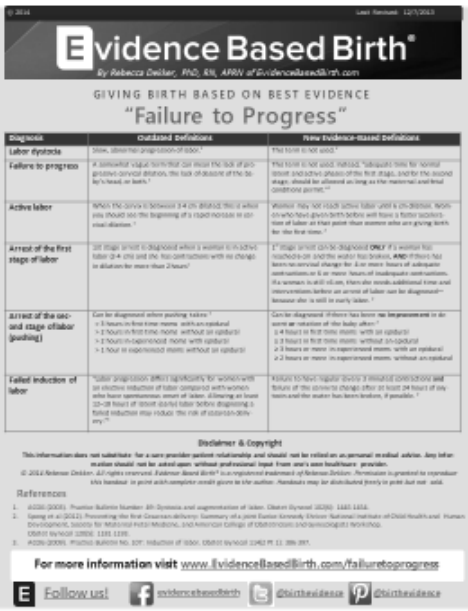
- Perinatal outcomes for twin gestations in which the first twin is in cephalic presentation are not improved by cesarean delivery. Thus, women with either cephalic/cephalic-presenting twins or cephalic/non-cephalic presenting twins should be counseled to attempt vaginal delivery.

ACOG Recommendations (cont.)

Other

- Individuals, organizations, and governing bodies should work to ensure that research is conducted to provide a better knowledge base to guide decisions regarding cesarean delivery and to encourage policy changes that safely lower the rate of primary cesarean delivery.

Shortened version of the ACOG recommendations that can be put on the unit as a quick reference for staff.



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By Rebecca Dekker, PhD, RN, ARNP of EvidenceBasedBirth.com

GIVING BIRTH BASED ON BEST EVIDENCE

"Failure to Progress"

Diagnosis	Outdated Definitions	New Evidence-Based Definitions
Labor dystocia	Slow, abnormal progression of labor.[1]	This term is not used.
Failure to progress	A somewhat vague term that can mean the lack of progressive cervical dilation, the lack of descent of the baby's head, or both.[1]	This term is not used. Instead, "adequate time for normal labor and active phase of the first stage, and for the second stage, should be allowed as long as the maternal and fetal conditions permit."[2]
Active labor	When the cervix is between 3-4 cm dilated, this is when one should see the beginning of a rapid increase in cervical dilation.[1]	Women may not reach active labor until 6 cm dilated. Women who have given birth before will have a faster acceleration of labor at that point than women who are giving birth for the first time.[3]
Arrest of the first stage of labor	1st stage arrest is diagnosed when a woman is in active labor (3-4 cm) and she has contractions with no change in dilation for more than 2 hours[1]	1st stage arrest can be diagnosed **ONLY** if a woman has reached 6 cm and the water has broken, **AND** if there has been no cervical change for 4 or more hours of adequate contractions or 6 or more hours of inadequate contractions. If a woman is still <6 cm, then she needs additional time and interventions before an arrest of labor can be diagnosed—because she is still in early labor.[3]
Arrest of the second stage of labor (pushing)	Can be diagnosed when pushing takes:[1] > 3 hours in first time moms with an epidural > 2 hours in first time moms without an epidural > 2 hours in experienced moms with epidural > 1 hour in experienced moms without an epidural	Can be diagnosed if there has been **no improvement** in descent or rotation of the baby after:[3] ≥ 4 hours in first time moms with an epidural ≥ 3 hours in first time moms without an epidural ≥ 3 hours or more in experienced moms with an epidural ≥ 2 hours or more in experienced moms without an epidural
Failed induction of labor	"Labor progression differs significantly for women with an elective induction of labor compared with women who have spontaneous onset of labor. Allowing at least 12–18 hours of latent-stage labor before diagnosing a failed induction may reduce the risk of cesarean delivery."[4]	Failure to have regular cervix 3 minutes of contractions and failure of the cervix to change after at least 24 hours of ruptured membranes and the water has been broken, if possible.[3]

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California MQCC

- Developed a measure known as the Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth rate
  - Identifies the proportion of live babies born at or beyond 37 weeks to women in their first pregnancy, singleton gestation, and vertex that are born via cesarean delivery.
  - Joint Commission adopted this metric in 2010 and now requires all hospital with more than 200 births report their results as part of the Perinatal Core Measure Set
  - Developed tool kit to support vaginal birth and reduce primary cesareans in 2016 as well as implementation guide for hospitals.

What Health Care Providers Can do to Help Decrease the Cesarean Rate

- Educate patients on normal physiologic labor
- Support patients decisions on fetal monitoring, pain management, timing of admission (early/latent labor vs active labor)
- Educate staff on new definitions, i.e. active labor (6cm) arrest of dilation or arrested labor, etc (see evidence based birth sheet)
- Encourage patients to wait for spontaneous labor and not chose to be induced early unless deemed medically indicated

What Health Care Providers Can do to Help Decrease the Cesarean Rate (cont.)

- Limit elective primary cesarean delivers unless indicated reason
- Educate patients on the facilities they can chose to delivery at
- Develop professional communication and teamwork within the delivering team
- Midwifery care has been identified as an underused maternity service that can improve overall outcomes, decrease costs and reduce rates of cesarean delivery

What health care providers can do to help decrease the cesarean rate (cont.)

- Nurses have a significant influence on women's mode of delivery and can be a factor in his/her efforts to prevent cesarean birth.
  - Continuous labor support
  - Breathing/relaxation techniques
  - Positions to promote comfort
  - Heat/cold/hydrotherapy
  - Use of peanut ball

What health care providers can do to help decrease the cesarean rate (cont.)

- Freedom of movement
- Upright and ambulatory positions
- Rotation/flexion and descent with an epidural
- Exercises and positions that facilitate fetal rotation with and without an epidural
- Intermittent fetal monitoring for low risk patients

Ongoing Projects to Help Decrease Cesarean rates

- Alliance for Innovation on Maternal Health (AIM) released Safe Reduction of Primary Cesarean Births Bundle in 2015.
  - Meant to be widely implemented, easily adoptable set of strategies for the safe, evidence-based reduction of primary cesareans (CMQCC).
- American College of Nurse Midwives is spearheading the Reducing Primary Cesareans with associated bundles for reduction of cesarean births

ARRIVE Trial

- Suggested induction of labor at 39 weeks of gestation among healthy nulliparous women reduces the rate of c/s as compared to expectant management among the same population as well as rates of pre-eclampsia, gestational hypertension, and rates of respiratory distress among newborns.
  - Used strict protocols for induction and monitoring process for labor management.
  - 22,533 women eligible for study, however only 27% (6106) participated in the study
- ACOG does not currently recommend routine induction of labor for low-risk pregnant women at 39 weeks.
- ACNM acknowledges the publication of the ARRIVE Trial results and affirms its support for the promotion of normal healthy physiologic birth and a women's right to self-determination.

Conclusion

- Cesarean delivery rates have been decreasing slightly over the past few years
- Educating patients and staff on ways to promote a vaginal birth can help decrease the primary cesarean delivery rate
- Following evidence-based recommendations either with or without established protocols can help a facility decrease their cesarean delivery rate
- ARRIVE Trial may eventually change how we practice and when induction of labor is performed in low-risk women

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- ACNM New Release: ACNM Responds to Release of ARRIVE Trial Study Results: Acknowledges Quality of Study but Raises Concerns about Potential for Misapplying Results (August 2018)
- ACOG Response to ARRIVE Trial (February 2018)

Appendix B: Peer Panel Review Questionnaire

Feed Back Questions

Demographics:

1. How long have you worked in Labor and Delivery and OB/GYN?
   a. 5-10 years
   b. 11-20 years
   c. 21-30 years
   d. 31 years or more

2. What is your role in Labor and Delivery or OB/GYN.
   a. Registered Nurse
   b. Certified Nurse Midwife/Certified Midwife
   c. Obstetrician/Gynecologist
   d. Family Practice trained in Obstetrics (FP/OB fellowship trained)

Questions:

1. Does the PowerPoint presentation promote ways the staff (Registered Nurses, Certified Nurse Midwives/Certified Midwives, and OB/GYN physicians) can help decrease primary cesareans?

2. What information in the presentation did you like?

3. What information in the presentation did you not like?

4. What challenges do you perceive may be faced implementing some of the recommendations from ACOG, Evidence Based Birth and the California Maternal Quality Care Coalition?

5. Was the education on decreasing the primary cesarean delivery rate appropriate?

6. What other recommendations do you have that can potentially decrease the primary cesarean delivery rate?

7. What comments do you have on the appropriateness of the content of this educational project?

8. Are there any other recommendations that should be added to the content of this presentation?

If you would like to know the outcome of this project, please state yes or no and provide your email.