# IMPACT OF EDUCATION OF NURSING STUDENTS IN INCREASING THE KNOWLEGE OF THE SAFETY OF VAGINAL BIRTH AFTER CESAREAN

by

Diandra Sanchez

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Texas Christian University

Fort Worth, Texas

# IMPACT OF EDUCATION OF NURSING STUDENTS IN INCREASING THE KNOWLEGE OF THE SAFETY OF VAGINAL BIRTH AFTER CESAREAN

#### Project Approved:

Supervising Professor: Lynnette Howington, DNP, RNC, WHNP-BC, CNL

Department of Nursing

Lisette Allender, MSN, RNC-OB

Department of Nursing

Matt Chumchal, BS, MS, Ph.D.

Department of Biology

#### **ABSTRACT**

The purpose of this project was to develop an evidence based educational program for undergraduate nursing students to increase their knowledge of vaginal birth after cesarean (VBAC). The program was based upon a review of literature that determined the reason for declining VBAC rates, the benefits of VBAC compared to repeat cesarean section (CS), and factors influencing the choice in delivery method. The students can then share their knowledge with women in the clinical setting to help them make an informed decision about VBAC and improve quality of care. From a review of the literature, an educational program was developed to deliver to Junior II nursing students in the Maternity Nursing course. The educational program consists of three phases: (1) pre-module questions to test student knowledge of VBAC; (2) an educational module about VBAC will be presented to nursing students while in their Maternity Nursing course; and (3) post-module testing of knowledge through questions given after the presentation. Student answers on the questions related to VBAC will determine if knowledge about VBAC was improved based upon the difference between pre and post module questions. This portion of the project will aim to develop the project, and if successful, can be implemented as a permanent part of the course to promote student knowledge.

#### ACKNOWLEDGEMENTS

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#### TABLE OF CONTENTS

INTRODUCTION	1
Definition of Terms	2
REVIEW OF LITERATURE	2
CS and VBAC Trends	3
Benefits and Risks	4
Barriers	5
Guidelines for a Successful VBAC	6
Impact of an Educational Module on VBAC	7
THEORETICAL FRAMEWORK	9
ADDIE Model	9
METHOD	10
Approval	10
Design, Setting, and Sample	10
Inclusion/Exclusion.	10
Procedure	11
Data Collection	11
RESULTS	11
Phase 1	12
Phase 2	13
Phase 3	13
DISCUSSION	14
RECOMMENDATION	14

VAGINAL BIRTH AFTER CESAREAN EDUCATION	vi
CONCLUSION	15
APPENDIX A	16
APPENDIX B	17
APPENDIX C	19
APPENDIX D	28
LIST OF REFERENCES	29

VAGINAL	BIRTH AFTER	R CESAREAN	<b>EDUCATION</b>

VII	1
V 1	•

LIST	OF	FIGI	IRES
	$\sim$ 1	110	

FIGURE 1: Rates of total CS deliveries	
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#### INTRODUCTION

In the 1900s, the common belief was "once a cesarean, always a cesarean" (Caughey, 2013). Since then, cesarean deliveries continue to rise, while vaginal birth after cesareans (VBAC) continues to decline, from 28.3% in 1996 to less than 8% in 2007 (Guise et al., 2004). Moreover, birth certificate data indicated that between 1996 and 2007, cesarean section (CS) rate rose by 53% (CDC, 2010). There is no solid explanation for the occurrence of this trend of the increasing use of cesareans for delivery and for declining use of VBAC's, but a deciding factor is the safety of the mother and child during childbirth. As a result of the increased rate of CS deliveries, Healthy People 2020 (HP2020) has a national objective focused on reducing the number of cesarean births among low risk women with a prior CS (U.S. Department of Health and Human Services [USDHHS], 2013). Furthermore, the National Institute of Health (NIH) convened a Consensus Development Conference in 2010 that urged healthcare professionals to reduce barriers to women who want to try a VBAC (NIH, 2010). To diminish these barriers, evidence about benefits and risk need to be discussed with women so they can make a more informed decision about VBAC. Nursing students can lead change in practice by being a patient advocate and educating mothers about VBAC; therefore there is a great need to explore the benefit of an educational program for them. A review of literature was performed to determine the benefits and drawbacks of VBAC compared to repeat cesarean delivery and relevant factors influencing the choice of each during childbirth. The purpose of this project was to utilize the review of literature to develop an educational program for nursing students to increase their knowledge of VBAC. This

knowledge in turn can be applied to the clinical setting to help woman make an informed decision about VBAC, thus possibly increasing the number of VBACs performed.

#### Definition of Terms

- Cesarean Section (CS) a surgical operation for giving birth in which a cut is made in the mother's body so that the baby can be removed through the opening (NIH, 2010).
- Vaginal birth after cesarean (VBAC) is vaginal delivery by a woman who has had a
  previous cesarean section performed (NIH, 2010).
- Repeat cesarean section (RCS) is a CS delivery performed in a woman who has had a
  previous cesarean section. It may be planned and termed elective repeat cesarean
  delivery (NIH, 2010).
- Trial of labor (TOL) is a planned attempt to labor by a woman to determine if normal vaginal birth is possible (NIH, 2010).
- Trial of labor after cesarean delivery (TOLAC) is the attempt to have a vaginal birth after cesarean delivery (ACOG, 2010).
- Uterine rupture is a full thickness tear through the uterine wall (Baskett & Kieser, 2002).

#### **REVIEW OF LITERATURE**

A review of the literature was performed to find the best evidence to answer the clinical question: In nursing students, how does offering an educational program on VBAC improve their knowledge. The threefold purpose of the research was to: (a) find evidence for the current trend of declining VBAC rates and rising CS; (b) gather general information about VBAC and its perception among healthcare professionals and patients; and (c) determine whether developing an educational program would be advantageous

and what information should be included.

The search was performed using four databases: CINAHL Complete, MEDLINE, ProQuest Nursing, and Allied Health Source. The search term initially used was 'vaginal birth after cesarean,' but this yielded too many articles. To narrow the search, the student author searched using more specific terms relevant to the study. The key terms searched included 'safety of VBAC,' 'benefit of VBAC', 'attitudes toward VBAC,' and 'education on VBAC.' Inclusion criteria consisted of articles published within the last ten years. In addition, articles were obtained from reference sections of the selected articles.

#### CS and VBAC Trends

A dramatic increase over that past four decades has occurred in the rate of CS performed in the US. The American College of Obstetricians and Gynecologists (ACOG) and the NIH reports an increase from 5% in 1970 to 32.3% in 2008, regardless of age, race, or state of residence for all women (see Figure 1). The steady decline of VBAC is certainly a contributing factor to the rise of CS and has been due to a number of barriers at the individual and policy level (ACOG, 2010; Menacker & Hamilton, 2010; NIH, 2010). The single most frequent indication for a CS was a prior CS, with one out every three babies being born in this manner (Flannagan & Reid, 2012; Guise et al, 2010; Scott, 2011). HP2020 reported that 90.8% of low-risk females giving birth after a prior CS in 2007, had a RCS (USDHHS, 2020). Concern has grown due to the high rate of repeat CS and the performance of CS on low risk patients. As a result, the NIH and ACOG have recommended that measures be taken to assure women that VBAC is an available option for them (ACOG, 2010; NIH, 2010; Wang, Chung, Sung, & Wu, 2006).

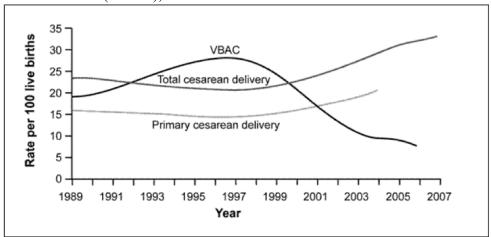


Figure 1. Rates of Total Cesarean Deliveries, Primary Cesarean Deliveries, and Vaginal Birth After Cesarean (VBAC), 1989 to 2007

Source: Data from the National Center for Health Statistics (NIH, 2010).

#### Benefits and Risks

Several studies found in the literature review discuss the benefits and risks of VBAC. Both repeat CS and VBAC carry risks including hysterectomy, operative injury, maternal hemorrhage, infection, thromboembolism, blood clots, and death (ACOG, 2010). The most serious complication associated with VBAC is uterine rupture, which can be life threatening to both the mother and fetus (Baskett & Kieser, 2002; Scott, 2011). However, the incidence of uterine rupture in VBAC is less than 1 per 1000 deliveries, with a rate of only 0.5-0.9% if the woman had a low transverse incision. However, CS continues to prevail even though the complication is rare (ACOG, 2010; Baskett & Kieser, 2002; Scott, 2011). Though rare, all women considering VBAC must be informed of the risk of uterine rupture and VBAC should only be performed in hospitals capable of performing an emergency CS.

The benefits of a successful VBAC include avoidance of major abdominal surgery, less maternal morbidity, and shorter hospital stay and recovery period. This leads to fewer women that experience fever, infection, hemorrhage, and reduces use of hospital

resources compared to CS. In addition, VBAC provides the opportunity to experience vaginal birth (ACOG, 2010; Baskett & Kieser, 2002; Morrero, 2012; Scott, 2011).

Overall, when VBAC is chosen there is a 60-80% success rate (Baskett & Kieser, 2002; Scott, 2011).

#### Barriers

The NIH in 2010 urged healthcare professionals to reduce barriers to woman who want to attempt a VBAC (NIH, 2010). Most pregnant women with a single prior CS with a transverse incision meet the criteria for and should be counseled about VBAC (ACOG, 2010). Acceptance differs between women, but studies have shown that it is highly dependent upon the way healthcare professionals present VBAC (Scott, 2011). All information regarding VBAC should be shared at a level and pace the woman can comprehend and should begin early in the pregnancy (NIH, 2010). After thorough discussion, the patient and physician decide together if VBAC is a safe option and the woman's preference should be honored. If VBAC is preferred and the facility does not have the available personnel or equipment, a referral or transfer to a different facility shall be made to respect patient autonomy (ACOG, 2010).

Additional barriers arise from physician practice patterns and legal pressures.

Marrero (2012) conducted a pilot study to determine if there is provider variation in CS and VBAC. The results indicate that providers performed more CS and offered less VBAC. Participants who performed more CS noted time constraints, limited hospital coverage, and both liability and malpractice concerns as barriers to performing a VBAC. Furthermore, Baskett & Kieser (2002) and the NIH (2010) panel recognized that fear of uterine rupture and concerns over liability have a major impact on the willingness of

physicians and healthcare facilities to offer TOL or VBAC. The NIH voiced concern about the effect of the current medical-legal environment in affecting access to care and increasing barriers to VBAC. They recommend that all hospitals, healthcare providers, insurance carriers, consumers, and policy makers collaborate to create services that can diminish the current barriers to VBAC (NIH, 2010).

#### Guidelines for a Successful VBAC

ACOG adopted clinical management practice guidelines in 2010 to provide realistic guidelines for managing and counseling women who are candidates for VBAC (ACOG, 2010). Grounded in scientific evidence, recommendations were made. Based on the highest level of evidence found, the clinical guideline states, "that most women with one previous cesarean delivery with a low-transverse incision are candidates for and should be counseled about VBAC and offered TOLAC" (ACOG, 2010, p. 3). This guideline is based upon the most consistent scientific evidence and yields the highest chance for VBAC success.

Through the literature review, data was found that is consistent with and in support of the ACOG clinical guidelines. A majority of the research studies concluded that a successful VBAC most likely occurs under the following conditions:

- Prior cesarean incision was low transverse
- An adequate pelvis and normal fetal size
- No other uterine scars, anomalies, or previous rupture
- Previous vaginal delivery
- Informed consent
- Spontaneous labor

Ability to perform emergency cesarean delivery (ACOG, 2010; Baskett & Keiser,
 2002; Morrero, 2012; NIH, 2010; Scott, 2011).

Although VBAC has a 60-80% success rate, the following conditions should alert caution and may also be potential contraindications to a VBAC:

- Prior classical or T-shaped incision or previous fundal surgery
- Prior uterine rupture
- Recurrent indication for initial cesarean delivery
- Macrosomia or large for gestational age
- Cepholopelvic disproportion
- Patient refusal
- Malpresentation
- Have had more than two cesareans
- Vaginal delivery is contraindicated due to an obstetric or medical complication
- Inability to perform emergency cesarean delivery (ACOG, 2010; Baskett & Keiser,
   2002; Morrero, 2012; NIH, 2010; Scott, 2011).

Healthcare professionals should be aware of the factors that contribute to a successful VBAC, as well as the contraindications so that they can offer safe, high-quality care.

#### Impact of an Educational Module on VBAC

Quality indicators examine procedures that are overused, underused, or misused or whose use varies significantly across hospitals. VBAC has been acknowledged as a potentially underused procedure therefore, the NIH recognizes the need for more VBACs in the hospital setting in order to give it higher quality ratings (Marrero, 2012; Menacker

& Hamilton, 2010; NIH, 2010). To attain better quality indicators and ensure patient safety, VBAC must be first understood by healthcare professionals to allow for delivery of fact based, unbiased information to patients. Facilitation of informed decision-making requires healthcare professionals to ensure that women fully understand information regarding the risks, benefits and uncertainties associated with both VBAC and repeat CS (Briss et al., 2004; Flannagan & Reid, 2012).

A research study by Eden, Hashima, Osterweil, Nygren, and Guise (2004) identified that conflicting evidence on VBAC safety makes patients and healthcare personnel uncertain about whether to pursue a VBAC or repeat CS. Researchers revealed that women who had a previous CS preferred to have a TOL based upon the benefits and recommend that future studies look into the effects of education on decision-making (Eden et al., 2004). This article is important due to the study findings indicating that women prefer to have a VBAC and education may help facilitate VBAC decisions.

Wang et al. (2006) developed an experimental study to test whether promoting VBAC education to a pregnant mother can reduce the number of CS and change their attitude toward VBAC. Initially only six out of ten subjects chose natural birth, after the education, nine out of the ten participants chose to attempt to have a natural birth. Nurse researchers concluded that the study findings were significant in identifying that an educational program can help reduce the number of CS performed by improving knowledge and attitudes toward VBAC. Furthermore, the researchers state this program can "broaden the vision of nursing education to enhance pregnancy care quality" (Wang et al, 2006). The purpose of including these research studies was to highlight the knowledge deficit among healthcare professionals and patients about VBAC, thus a need

for education exists. Moreover, there is evidence to support that educational programs can increase knowledge and promotion of VBAC.

#### THEORETICAL FRAMEWORK

#### ADDIE Model

The theoretical framework that will guide this project is based on the ADDIE model. The ADDIE model is an instructional design framework consisting of five phases: analysis, design, development, implementation, and evaluation (Forest, 2014). In the analysis phase the designer identifies the learning problem, objectives, goals, the audience needs, and level of teaching required for the project. Design is the process of specifying learning objectives, lesson planning, media selection, and subject matter analysis. Development is concerned with the actual production of the content and learning materials that were created in the design phase. The plan is executed in the implementation phase and the designer will present the educational program to the participants utilizing the appropriate media. In the last phase, evaluation is determined on two separate levels. The first level is to determine if the participants successfully obtained and retained the demonstrated information. The second level consists of determining how successful the instructional design was in facilitating effective participant learning and revisions are made in this phase if necessary (Forest, 2014). This theoretical model was modified to the needs of the project to create the educational program that will be delivered to research participants.

#### **METHOD**

#### Approval

Approval to conduct this study was obtained from the Nursing Review Board (NRB) of the Harris College of Nursing & Health Sciences prior to project development (see Appendix D). The student author completed the required NIH course for protecting human research participants. To maintain privacy and confidentiality, no personal identification information is to be obtained in this project.

#### Design, Setting, and Sample

Inclusion/Exclusion

This study will utilize a pretest-posttest design to monitor the effect occurring as a result of the educational module. The design measures the degree of change to determine whether the teaching method was significant in improving nursing students' knowledge about VBAC. The setting to complete the pre-module questions, educational module, and post module questions will take place in the Maternity Nursing course class time. The pre and post module questions will be completed through a Qualtrics survey available online. The educational module will be a presentation given to the course section as a whole, during class time.

The target population consists of nursing students in the Maternity Nursing course. The precise population number cannot be determined until the implementation project is implemented in the course. The number can be predicted to be approximately between 40-80 participants, contingent to the time of year the project is implemented.

Inclusion criteria will include all nursing students in the Maternity Nursing course.

Participants must be willing to consent, which will be implied by a willingness to

complete and participate in the educational program including the pre-module questions, educational module, and post module questions. There will be no exclusion criteria included in the study.

#### Procedure

The pre-module questions, educational module, and post module questions were developed based on the review of literature. The pre and post module questions were designed on an online survey application, Qualtrics, and will be accessible to the TCU nursing students in the Maternity Nursing course. Before the pre-module questions are presented, there is a letter of introduction to the project and an informed consent statement (see Appendix A). Implied consent will be given when the participant proceeds to the next page of the survey to begin the pre-module questions. The Qualtrics survey tool will be easily accessible through the TCU online portal system and of no cost to the participants. The educational module was designed on an online presentation tool, Prezi. The student researcher will not present the Prezi, but it will be made available to the course instructors, upon request. The presentation will be easy to operate and maneuver.

#### Data Collection

Data will be collected when the implementation program is implemented. The results of the educational program will be analyzed using statistical tests appropriate to the level of data measurement. The Qualtrics system will record and generate results of the before and after module questions.

#### RESULTS

Once approval was obtained from NRB of the Harris College of Nursing and Health Sciences, the implementation project of developing the educational program began. After

analyzing and integrating the literature, the student author used the ADDIE model to construct an educational program for nursing students enrolled in the Maternity Nursing course. The educational module was designed to meet the following objectives: (1) define VBAC and CS and discuss their decline and rise, respectively; (2) determine the barriers to VBAC; (3) realize the benefits and risks of VBAC; (4) understand the successful rate of VBAC by integrating the numbers from the literature review; (5) present the clinical guidelines of a successful VBAC and contraindications to VBAC; and (6) prepare nursing students to educate their patients on VBAC and be patient advocates.

The goals of the overall educational program were as follows: (1) increase the knowledge of VBAC of nursing students; (2) increase awareness of the declining VBAC rate and, that under the right conditions, there is minimal risk to VBAC; (3) help nursing students to be patient advocate and disseminate the teachings to patients in the clinical setting to assist them in making an informed decision about VBAC.

The programs teaching method, content, and pre and posttest were developed in accordance to the programs objectives and goal. The educational program consists of three phases: 1) pre-module questions; 2) educational module; and 3) post module questions. The results of the tests will determine if the educational module was able to significantly improve VBAC knowledge of nursing students.

#### Phase 1

The student author developed a set of pre-module questions after performing a review of the literature. Qualtrics, an online survey application, will be utilized to present the pre-module questions and collect data about nursing students' knowledge of VBAC before the educational module is presented. The pre-module questions, developed by the

student author (see Appendix B), consist of eleven questions, nine of which were created to determine the foundation of VBAC knowledge of nursing students. The pre-module questions will be given to the students in class before the module is presented.

#### Phase 2

The educational module was designed by integrating data and information obtained from the analysis of the literature. The student author designed the educational module to fulfill the educational objectives and program goals of the project. An online presentation tool, Prezi, will be the teaching method utilized to convey the VBAC information to the nursing students. The student researcher will not present the Prezi, instead the presentation will be made available to the Maternity Nursing course instructors to present to the nursing students during the specified course hours. The Prezi contains nine topics that will review the objectives. The presentation will take approximately thirty minutes to complete.

#### Phase 3

The post module questions will elicit VBAC knowledge in nursing students after receiving the educational module. The unchanged pre module questions (see Appendix B) will be applied as the post module questions. Knowledge will be tested through questions given after the educational module presentation using the Qualtrics system. The results of the pretest and posttests will be reviewed using the Qualtrics results tool to determine if the educational module improved students' knowledge about VBAC and if the improvement was statistically significant.

#### DISCUSSION

The review of literature indicates that women are not being educated on the safety of VBAC. There is a great need to explore the benefit of an education program for nursing students who can lead change in practice by being patient advocates and educating mothers on VBAC. The research provides an abundance of knowledge and evidence showing a sound basis for making a practice change exists to promote VBAC. The literature shows that cesarean deliveries are increasing and VBAC is not being promoted. Barriers towards VBAC exist at all levels of the system and need to be mitigated to allow VBACs to be performed. Educating nursing students can help diminish the barriers caused by knowledge deficit and conflicting evidence. Thus, the student author created an educational program intended at increasing knowledge of VBAC in nursing students. With the knowledge learned, students can assure women that VBAC is an available option to them.

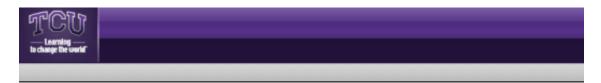
#### RECOMMENDATION

This report focused on designing the educational program for the implementation project. The student author recommends that future plans include the implementation of the educational program and evaluation of the results of the program. If the projects results are statistically significant in increasing VBAC knowledge, the educational module can be implemented as a permanent part of the Maternity Nursing course, as well as be modified so hospitals and other healthcare facilitates can use it to educate other healthcare personnel and patients. Furthermore, the student author recommends that future studies look at participants' attitudes and perceptions of VBAC to determine if an educational program impacts them favorably.

#### CONCLUSION

While evidence shows there are an increasing number of repeat caesarean deliveries, there is no solid medical evidence to show why this trend exists. Multiple articles indicate, that in the right conditions, a VBAC can be chosen safely and is essential to reducing the number of cesarean deliveries performed yearly. Educating health care professionals and pregnant mothers of the safety of VBAC is one step towards increasing the number of women choosing VBAC as a delivery method. The specific aim of this project was to utilize the literature review and ADDIE framework model to create an educational program about VBAC to be delivered to nursing students. The educational program will be used to increase nursing students' perception and knowledge of VBAC to hopefully disseminate the teaching to other healthcare professionals and patients in the clinical setting.

#### **APPENDIX A**



My name is Diandra Sanchez and I am a Texas Christian University nursing student working on my Departmental Honors Thesis titled "The impact of education of nursing students in increasing the knowledge of the safety of vaginal birth after cesarean."

#### Participants:

You are being asked to participate in the study if you meet the inclusion criteria below:

- 1) Nursing students in the Maternity Nursing course.
- 2) Willing to consent to the study.

#### Purpose:

You are invited to participate in a research study to determine vaginal birth after cesarean (VBAC) knowledge in nursing students before and after participating in an educational module about VBAC.

#### Content:

The pre-module questions will determine the foundation of VBAC knowledge of nursing students. The educational module will be presented in your Maternity Nursing course and contains information regarding VBACs. The posttest questions will be knowledge-based questions derived from the educational module to determine the effectiveness of the program.

#### Duration:

The pre-module questions will take approximately 5-10 minutes of your time. The educational module will take approximately 20-30 minutes to complete. After completion of the educational module in your course, the posttest questions will take approximately 5-10 minutes of your time and will be taken as part of your next exam or in the same method as the pre-module questions.

#### Benefits:

There may be no direct benefit to you as a participant in this study. However, the results of the study will help determine if the educational module increased nursing students knowledge about VBAC and, if successful, can be implemented as a permanent part of the Maternity Nursing curriculum and allow for the dissemination of VBAC knowledge into the clinical setting.

#### Risks

There are risks involved in all research studies, but the risk involved in this study may only be minimal in that you may feel stressed when answering some of the questions.

#### Confidentiality and Anonymity:

All information gathered in this study will remain completely confidential and anonymous. No identifiable markers will be asked of the participants in this study, therefore no link can be made to the respondents.

#### Voluntary Participation:

Your participation in this study is voluntary. You may refuse to participate in this study. You do not have to answer all the survey questions and you can stop participating in the study at any point in the process.

#### PARTICIPANT CONSENT

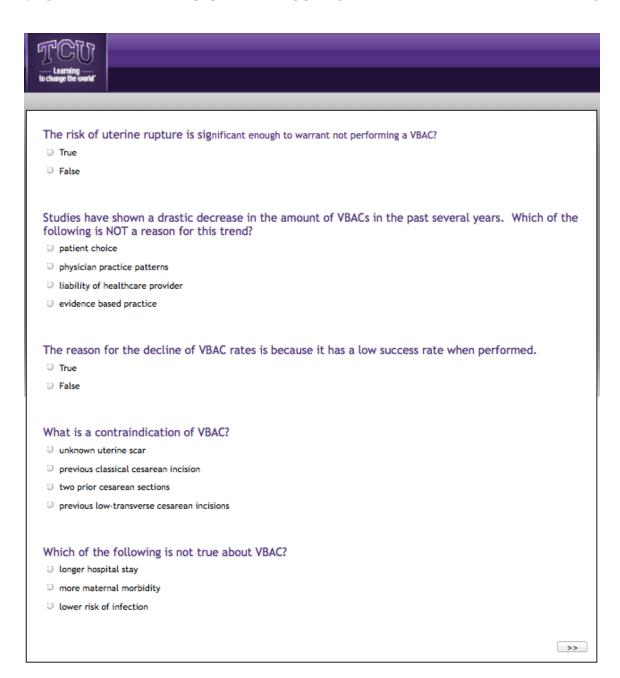
If you meet the inclusion criteria and have read the above information and are willing to participate in the study, please proceed by clicking the Next icon at the bottom of the screen.

>>

#### APPENDIX B

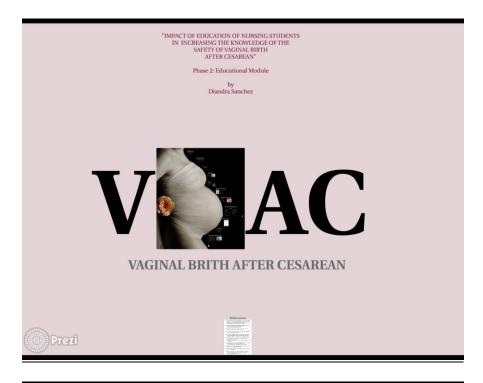
TCII	
— Learning — to change the world	
Age	
Gender	
⊖ Male	
○ Female	
Do you be sure hat the account VDAC at and a feet	
Do you know what the acronym VBAC stands for?  □ No	
What is vaginal birth after cesarean (VBAC)?	
is a planned attempt to labor by a woman who has had a previous cesarean delivery	
is the delivery of a baby vaginally after having had a previous cesarean section	
<ul> <li>is a surgical operation for giving birth in which a cut is made in the mother's body so that the baby can be removed through the opening</li> </ul>	
Which of the following procedures is performed more often?	
○ vaginal birth after cesarean	
○ repeat cesarean section	
What is the most concerning risk of VBAC?	
□ infection	
□ uterine rupture	
□ hemorrhage	
	>>

Survey Powered By Qualtrics



Survey Powered By Qualtrics

#### APPENDIX C

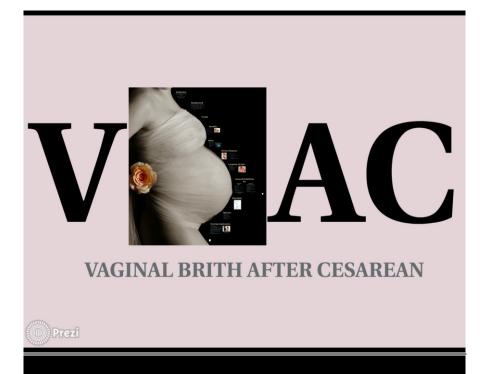


#### "IMPACT OF EDUCATION OF NURSING STUDENTS IN INCREASING THE KNOWLEDGE OF THE SAFETY OF VAGINAL BIRTH AFTER CESAREAN"

Phase 2: Educational Module

by Diandra Sanchez





## Definition

Vaginal birth after cesarean (VBAC)

is vaginal delivery by a woman who has had a previous cesarean section (CS) performed.

(NIH, 2010)



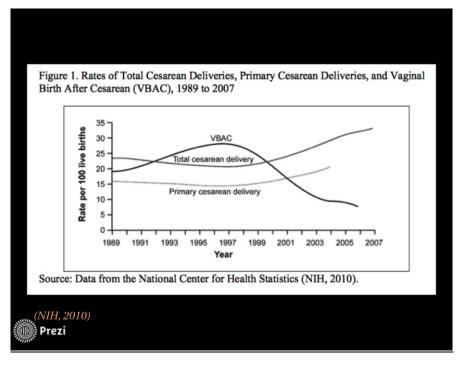
# Background

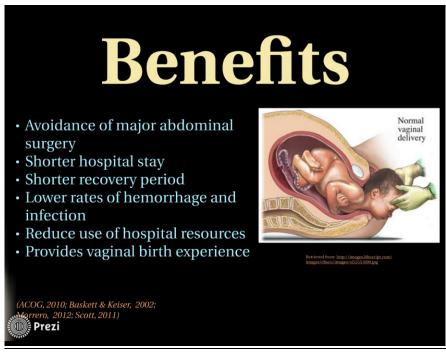
- "Once a Caesarean always a Caesarean" common belief
- Cesarean deliveries continue to rise and VBAC continue to decline from 28.3% in 1996 to less than 8% in 2007
  HP2020 objective to reduce CS rates
- NIH convened a Consensus Development Conference in 2010 that urged the healthcare professionals to reduce barriers to woman who want to try a VBAC

(Caughey, 2013; Guise et al, 2004; NIH, 2010; USDHHS, 2013)

# Trends









Repeat CS and VBAC both carry risks including:

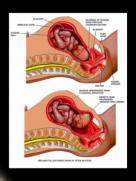
- hysterectomy
- operative surgery
- maternal hemorrhage
- infection
- thromboembolism
- · blood clots
- death



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## **Uterine Rupture**



Uterine rupture is the most serious complication of VBAC

Life threatening emergency for both mother and baby

However, the incidence is less than 1 per 1000 deliveries, or a rate of 0.5-0.9% in woman with a low transverse incision

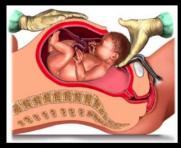
(ACOG, 2010; Baskett & Keiser, 2002; Scott, 2011)

### **Cesarean Section**

Compared to vaginal deliver, CS are associated with

- greater blood loss
- · longer recovery
- · more neonatal respiratory disorders
- postpartum infections
- maternal bladder injuries
- thromboembolism
- · more rehospitlizations

(Scott, 2011)



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### General Guidelines for

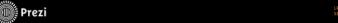
#### Successful VBAC

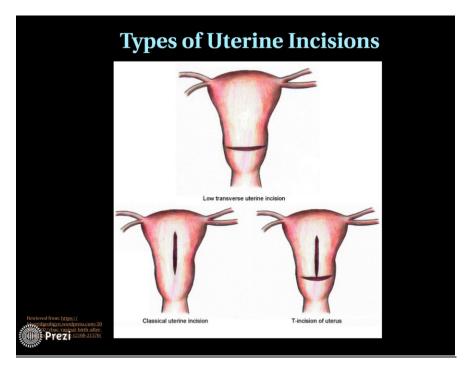
- Prior cesarean incision was low transverse
- One previous CS
- Adequate pelvis and normal fetal size
- No other uterine scars, anomalies, or uterine rupture
- · informed consent
- Ability to perform emaergency CS

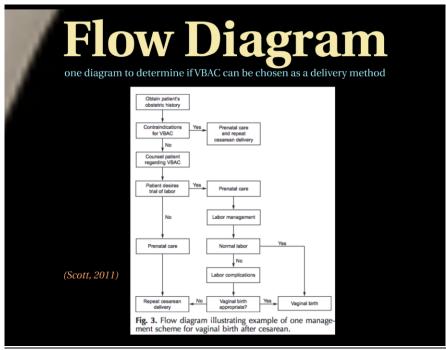
60-80% of VBACs performed are successful.

### Caution & Contraindications

- · Prior classical or T-shaped incision
- Recurrent indication for initial CS
- Prior uterine rupture or previous fudal surgery
- Macrosomia
- Large for gestational age
- Cephalopelvic disproportion
- Patient refusal
- Malpresentation ie. breech or transverse
- · More than two CS
- Inability to perform emergency CS







# Barriers

- · Maternal decision
- Restrictions by insurers
- Restrictions by hospitals
- Liability and malpractice
- Hospitals that do not offer VBAC
- Physician practice patterns
- Fear
- Conflicting evidence
- · Knowledge deficit

(ACOG, 2010; Baskett & Keiser, 2002; Eden et al., 2004; Marrero; 2012; NIH, 2010: Scott. 2011; Wany et al., 2006)



### **Nursing Implication**

- Be patient advocate!
- Become knowledgeable about VBAC
- Assure women that VBAC is an option
- Facilitate informed decision making by ensuring women understand the risks, benefits, and uncertainties of VBAC
- Begin educating and facilitating decision making early on in the pregnancy
- · Make sure informed consent is signed
- · Respect patient autonomy



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#### APPENDIX D



#### College Review for Human Subjects

To: Diandra Sanchez

From: Dr. Rhea

CC: Dr. Howington & Dr. Lowrance

Date: 3/2/16
Re: NURS

Dear : Diandra,

Your protocol entitled, "Impact of education of nursing Students in increasing the knowledge of the safety of vaginal births after cesarean" has been recommended for approval by the Nursing Review Board and has now been approved by Dr. Rhea, Associate Dean of Research in Harris College, for the period of 3/1/16 - 3/1/17. Please note that any changes in the protocol will have to be submitted and recommended for approval by the Nursing Review Board and then on to Dr. Rhea. You must also report in writing any adverse events to Dr. Lowrance, Chair of the Nursing Review Board, and Dr. Rhea within one week of the event taking place. This letter is to verify that your study is identified as minimal risk with no high risk populations. This letter will be your proof of approval.

Best wishes with your study,

Deberal ORhen

Dr. Rhea

Associate Dean - Research

Harris College

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