

IMPACT OF INTRAPARTUM NURSES' PERSONAL DEMOGRAPHICS
AND HOSPITAL-SPECIFIC CHARACTERISTICS
ON LABOR SUPPORT SELF-EFFICACY

by

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Submitted in partial fulfillment of the
requirements for Departmental Honors in
the Department of Nursing
Texas Christian University
Fort Worth, Texas

May 6, 2024

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ABSTRACT

In 2020, the United States cesarean birth rate was 32%, nearly an 8% increase from 2000. Cesarean births increase infection risk, blood clots, pelvic pain, and postpartum depression. Labor support has been shown to reduce cesarean births; however, intrapartum (IP) nurses do not universally provide it in hospitals. The purpose of this study is to explore relationships between IP nurses' personal demographics and hospital-specific characteristics with their self-efficacy in providing labor support.

This study is a secondary analysis of data collected from online surveys in April-August 2020. Participants include members of Association for Women's Health, Obstetric, and Neonatal Nurses (AWHONN) Texas Chapter who identify as IP nurses (N=106) and were recruited through AWHONN to take two surveys: personal and hospital-specific characteristics and the Self-Efficacy in Labor Support Scale (SELSS). Correlational and descriptive analyses were conducted on personal and hospital data to determine the impact on self-efficacy in labor support.

Scores for SELSS range from 20 to 98 with a mean of 85. Results identify three prominent predictors of labor support, including years worked as an IP nurse ($r=0.48$, $p<0.001$), professional certification obtainment ($p<0.05$), and personal birth experience ($p<0.05$). Hospital characteristics including nurse-to-patient ratio, geographic location, and hospital type were not predictors of self-efficacy.

Intrapartum nurses with personal birth experience hold a unique perspective having been in the patient role, thus influencing care they provide. Further, experienced IP nurses gain confidence in labor support skills through practice. Experienced IP nurses should be encouraged to mentor new nurses in providing labor support. Despite the correlation between certification and self-efficacy, there lacks a national certification on labor support. National organizations should create a labor support certification to educate on best-practices and quality care for laboring women thus decreasing cesarean births and improving birth outcomes.

Introduction

In 2020, rates of cesarean birth in the United States reached 32%, nearly an 8% increase since 2000 (Boerma et al., 2018). While cesarean birth seems typical in today's society, it is a major abdominal surgery with risks to the mother and baby including infection, bladder or ureter injury, blood clots, pelvic pain, and anxiety and postpartum depression (Association of Women's Health, Obstetric and Neonatal Nurses [AWHONN], 2022). One increasingly popular practice to reduce cesarean sections is continuous labor support (CLS), however it is not universally available at hospitals. It is interesting to consider what personal and institutional factors affect CLS implementation in the first place. There is a gap in evidence related to the relationship between nurses' own personal and professional demographics and CLS self-efficacy. The proposed study aims to provide valuable information regarding the CLS self-efficacy of nurses related to demographic, personal birth, professional, and workplace differences.

Literature Review

The conducted literature review used the PubMed Complete, CINAHL Complete, and Cochrane Library databases using keyword terms and combinations of "labor and delivery," "labor support," "nurse self-efficacy," "barrier," and "cesarean birth." Nursing practices and guidelines evolve constantly, requiring clinical literature (consisting of systematic reviews and experimental trials) to be included from the past twenty years. Theoretical frameworks were obtained from their published date. Aside from Davies and Hodnett's (2002) systematic review, which included research conducted in many countries, all research included was conducted within the continental United States.

CONTINUOUS LABOR SUPPORT

Labor support is a term used to describe the care and support provided to women during labor and birth. Bohren et al. (2017) defines labor support as a combination of comfort measures, emotional support, provision of information, and advocacy on behalf of the woman from admission through birth provided by a person whose sole responsibility is to support the woman as continuously as possible. While labor support can be provided by doulas, hospital nurses, midwives, family members or friends, labor support provided by nurses is the focus of this research. Literature suggests that continuous labor support improves birth outcomes. Bohren et al. (2017) found that women who receive CLS are more likely to give birth spontaneously, have shorter labors, are less likely to have a cesarean or instrumental vaginal birth, use regional analgesia, and have a baby with a low five-minute Apgar score. Furthermore, CLS helps decrease anxiety and fear during labor and is not linked to any adverse effects for women, fetuses, or newborns. Research findings indicate that it is a safe practice and should be implemented in patient care (Bohren et al., 2017). Despite these favorable results, however, CLS is not standard nursing practice in the United States.

Past research has determined differences in labor support self-efficacy perspectives and practices among nurses and facilities. Barrett & Stark (2010) found that a positive relationship exists between nurse labor support behaviors and age, suggesting that a nurse's experience and autonomy are critical to their effectiveness and implementation of CLS. Similarly, Aschenbrenner et al. (2016) discovered that nurses' own birth experiences rather than best evidence are associated with their attitudes toward the importance of and intended implementation of CLS. When educational level was examined, no difference in CLS was found, indicating that the same degree of CLS should be seen regardless of the type of educational

background a nurse has (Barrett & Stark, 2010). Interestingly, nurses who work in facilities with higher epidural analgesia and cesarean rates reported fewer labor support behaviors, indicating that facility care standards impact labor support practices (Aschenbrenner et al., 2016). While individual experiences and perspectives influence the degree to which CLS is accepted or implemented, other barriers can affect its implementation.

There are many obstacles that prevent nurses from implementing continuous labor support in practice. Aschenbrenner et al. (2016) reports the following barriers to CLS: caring for more than one laboring patient; covering staff breaks; technology and documentation requirements; beginning or ending a shift in the middle of a patient's labor; unnecessary medical interventions; lack of education or confidence in providing CLS; lack of unit policies; inadequate staffing; and physician's attitudes.

SELF EFFICACY

Self-efficacy refers to an individual's belief in his or her capacity to act in ways necessary to reach specific goals. It reflects confidence in the ability to exert control over an individual's motivation, behavior, and social environment (Bandura, 1997). An individual's sense of self-efficacy may play a large role in how they approach tasks, goals, and challenges. In nursing, self-efficacy may predict a nurse's competency or performance when implementing evidence-based care. Davies and Hodnett (2002) developed the widely cited Self-Efficacy Labor Support Scale (SELSS) used to evaluate nurse self-efficacy related to labor support. The scale measures nurses' confidence in reviewing birth plans, providing physical comfort, managing pain with nonpharmacological methods, and providing physical, emotional, and informational support during labor (Davies & Hodnett, 2002). Davies and Hodnett assessed nurse labor support self-efficacy at four different Ontario hospitals. Nurses at all four hospitals had high self-efficacy

in their ability to provide CLS, but only spent between 11.7% and 29.8% of their time providing labor support to patients. The nurses cited inadequate staffing, lack of management support, negative staff attitudes, and ill-equipped hospital rooms as factors that prevented them from providing CLS (Davies & Hodnett, 2002). To address the gap between self-efficacy and actual CLS practices, Page et al. (2021) implemented the Promoting Comfort in Labor bundle, which provided nurses with tools and materials to improve CLS self-efficacy and practices to reduce the rate of cesarean births at a Virginia hospital. They found a statistically significant increase in self-efficacy scores and CLS practices once the bundle was introduced, indicating that educational methods like computer learning modules, hands-on workshops, and written materials can improve nurse confidence in providing labor support and can promote strategies to further implement labor support practices in every-day care (Page et al., 2021).

THEORY OF PLANNED BEHAVIOR

The Theory of Planned Behavior, developed by social psychologist Icek Ajzen (1991), is a behavioral theory which analyzes factors that affect behavioral intentions and, thus, explains behavior. According to the theory, the primary factor in predicting one's behavior is a shift in behavioral intentions and is dependent on attitude (either positive or negative), subjective norms (whether most people approve or disprove of a behavior), and perceived behavioral control or self-efficacy. This framework was chosen for the study because it guides the understanding of the degree to which nurse CLS self-efficacy behaviors can change in the context of demographic changes, such as nursing experience and educational attainment or geographical setting and hospital type, and perceived barriers.

CRITIQUE

Citation	Level	Quality
<p>Ajzen, I. (1991). The theory of planned behavior. <i>Organizational Behavior and Human Decision Processes</i>, 50(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T</p>	IV	A
<p>Aschenbrenner, A. P., Hanson, L., Johnson, T. S., & Kelber, S. T. (2016). Nurses' own birth experiences influence labor support attitudes and behaviors. <i>Journal of Obstetric, Gynecologic, and Neonatal Nursing</i>, 45(4), 491-501. https://doi.org/10.1016/j.jogn.2016.02.014</p>	II	A
<p>Association of Women's Health, Obstetric and Neonatal Nurses. (2022). Labor support for intended vaginal birth. <i>Journal of Obstetric, Gynecologic, and Neonatal Nursing</i>, 51(6), S1-S42. https://doi.org/10.1016/j.jogn.2022.04.006</p>	IV	A
<p>Bandura, A. (1997). <i>Self-efficacy: The exercise of control</i>. W.H. Freeman.</p>	V	B
<p>Barrett, S. J., & Stark, M. A. (2010). Factors associated with labor support behaviors of nurses. <i>The</i></p>	III	A

<p><i>Journal of Perinatal Education</i>, 19(1), 12-18.</p> <p>https://doi.org/10.1624/105812410X481528</p>		
<p>Boerma, T., Ronsmans, C., Melesse, D. Y., Barros, A. J. D., Barros, F. C., Juan, L., Moller, A., Say, L., Hosseinpoor, A. R., Yi, M., de Lyra Rabello Neto, Dácio, & Temmerman, M. (2018). Global epidemiology of use of and disparities in caesarean sections. <i>The Lancet (British Edition)</i>, 392(10155), 1341-1348. https://doi.org/10.1016/S0140-6736(18)31928-7</p>	IV	A
<p>Bohren, M. A., Hofmeyr, G. J., Sakala, C., Fukuzawa, R. K., & Cuthbert, A. (2017). Continuous support for women during childbirth. <i>Cochrane Database of Systematic Reviews</i>, 2017(8).</p> <p>https://doi.org/10.1002/14651858.CD003766.pub6</p>	IV	A
<p>Davies, B. L., & Hodnett, E. (2002). Labor support: Nurses' self-efficacy and views about factors influencing implementation. <i>Journal of Obstetric, Gynecologic, & Neonatal Nursing</i>, 31(1), 48-56.</p> <p>https://doi.org/10.1111/j.1552-6909.2002.tb00022.x</p>	II	A
<p>Page, K., Early, A., & Breman, R. (2021). Improving nurse self-efficacy and increasing continuous labor</p>	IV	A

<p>support with the promoting comfort in labor safety bundle. <i>Journal of Obstetric, Gynecologic, and Neonatal Nursing</i>, 50(3), 316-327.</p> <p>https://doi.org/10.1016/j.jogn.2021.01.006</p>		
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Methodology

The proposed study will be a descriptive secondary analysis of quantitative de-identified data reported by Lisette Saleh PhD, MSN, RNC-OB.

The original study completed in February 2021 recruited a purposeful sample of intrapartum (IP) nurses working in Texas through an email distribution list based on their membership in the Association of Women’s Health, Obstetric and Neonatal Nurses (AWHONN) professional organization. AWHONN members who opted into survey emails received an email with information regarding the study and a link to a Qualtrics survey, which included a statement that the survey was completely voluntary, participants could withdraw at any time, and opening the survey provided access to the Consent to Participate in Research form (Appendix 1)

Inclusion criteria entailed membership in AWHONN, 18 years of age or older, self-identifies as an intrapartum nurse, and works more than 20 hours a week on an intrapartum unit in Texas.

Nurses who chose to participate in the study completed an initial online Qualtrics survey (Phase 1), which collected demographic and workplace characteristic information and the Nurse Attitudes and Beliefs Questionnaire NABQ-R (Appendix 2) a survey developed by the original co-investigator based on her knowledge and experience in intrapartum nursing. One month later, a second Qualtrics survey (Phase 2) was distributed to the participants who desired to continue the study after Phase 1, which included the Labor Culture Survey (Appendix 3) developed by Dr.

Emily White VanGompel, and the Self-Efficacy Labor Support Survey (Appendix 4), developed by Davies and Hodnett (2002). Two hundred thirty-one nurses completed the Phase 1 surveys. Of the original 231 participants, 108 nurses completed the Phase 2 surveys. Two nurses did not complete both Phase 2 surveys, leaving 106 total participants in the study.

The Institutional Review Board at Texas Christian University and AWHONN's National Research Committee reviewed and approved the original study. The investigator for the proposed secondary analysis applied for IRB approval to analyze data from a study previously approved by the convened IRB, and where the remaining research activities are limited to data analysis and are permanently closed to the enrollment of new subjects.

Confidentiality Statement/Data Protection

Data from the original study has been de-identified, making it impossible to connect research data with the individual who provided the data. At the time of data collection, participants were assigned a random number, and all identifiers were removed from the data. All data files are secured by the Principal Investigator on a password-protected computer within a Texas Christian University Box file, and only the original research team has access to personal identifiers.

Measurements

Nurse Attitudes and Beliefs Questionnaire – Revised (Appendix 2). This survey was developed by Dr. Martha Levine, an investigator in the original study, to gather demographic and workplace data. The questionnaire has 25 items on a 4-point Likert scale. The Cronbach's alpha was 0.88, indicating satisfactory reliability. The item pool generation and expert panel consensus provided strong evidence for validity.

Labor Culture Survey (Appendix 3). This survey was developed by Dr. Emily White VanGompel to assess intrapartum nurse perspectives on maternity care. The questionnaire has 29 questions on a 5-point Likert scale. The Cronbach's alpha was between 0.53 and 0.84 for the six subscales, indicating fair to good reliability. The researchers repeated psychometric and qualitative data analysis to determine validity.

Self-Efficacy Labor Support Survey (Appendix 4). This survey was developed by Dr. Barbara Davies and Dr. Ellen Hodnett. The scale helps assess an intrapartum nurse's self-efficacy for providing continuous labor support (Davies & Hodnett, 2002). It has 14 questions on a 7-point Likert scale. The Cronbach's alpha was 0.98, indicating excellent reliability. To test for validity, an expert panel of three obstetric nurses and one midwife provided suggestions for improvement and rated the relevance of survey items, where 11 of the 13 concepts received a 3 or 4 on a 4-point scale from at least three of the reviewers (Davies & Hodnett, 2022).

Data Analysis

Descriptive statistics were used to analyze personal and hospital data including education, certifications, personal birth experience, years of experience, annual births, staffing ratios, hospital geographic and practice settings, and NICU acuity level. Survey response frequencies were plotted into histograms and correlational and descriptive analyses, including independent samples t-tests; one-way ANOVAs; bivariate correlations; and Tukey, Scheffe, LSD, and Bonferroni post hoc analyses, were conducted to determine whether certain demographic categories are correlated with or have significantly higher self-efficacy perspectives.

Results

Personal Demographics

Of the 1,963 potential participants, 106 completed both Phase 1 and Phase 2 surveys and met inclusion criteria (response rate 5.4%). Participants averaged 41.09 ± 12.51 years of age, with 13.63 ± 10.66 years of experience as an IP nurse. The majority of participants identified as White/Caucasian (84.9%, $n = 90$), female (99.1%, $n = 105$), and held a bachelor's degree (69.8%, $n = 74$). Of participants who held a professional certification (79.2%, $n = 84$), the two most common were inpatient intrapartum nursing (55.7%, $n = 59$) and electronic fetal monitoring (47.2%, $n = 50$). Most participants have had a personal birth experience (74.5%, $n = 79$), with 62.3% ($n = 66$) having had a vaginal delivery, 25.5% ($n = 27$) having had a cesarean delivery, and 13.2% ($n = 14$) having both vaginal and cesarean delivery. Due to small frequencies and high variability, certifications were not analyzed independently. Rather, analysis included an independent t-test comparing certification (79.2%, $n = 84$) to no certification (20.8%, $n = 22$).

Hospital Characteristics

Participants in this study primarily worked in urban (85.8%, $n = 91$) and rural settings (14.2%, $n = 15$) in Texas, and primarily practiced in community (67.9%, $n = 72$) or teaching hospitals (29.2%, $n = 31$). Most facilities had a nurse-to-patient ratio of 1:1 (51.9%, $n = 55$) or 1:2 (44.3%, $n = 47$).

SELSS Results

Data in this study was normally distributed. Continuous variables were analyzed using bivariate correlations, categorical variables with two independent groups were analyzed using independent samples t-tests, and categorical variables with more than two independent groups were analyzed using one-way ANOVAs.

The mean SELSS score was 85.28 ± 12.45 , with a median of 87.50 and a range of 20 to 98. The best predictors for SELSS scores were years as an intrapartum nurse ($r = 0.480$, $p < 0.001$), holding a certificate ($p < 0.05$), and personal birth experience ($p < 0.05$). The remaining four variables had varying levels of significance.

Discussion

This secondary analysis investigated personal IP nurse and facility characteristics that predict labor support self-efficacy. This study is different from the original study in that it analyzed the independent personal and hospital variables that can be influenced by professional decisions by either the IP nurse themselves or by hospital leadership. Three prominent predictors of labor support self-efficacy include years worked as an IP nurse, professional certification obtainment, and personal birth experience. These findings are consistent with Barrett & Stark (2010) who found that a nurse's experiences and autonomy are critical to their effectiveness and implementation of labor support. Findings are also consistent with Aschenbrenner et al. (2016), who discovered that nurses' personal birth experiences rather than best evidence are associated with their attitudes toward implementing labor support. It makes sense that the more years worked as an IP nurse, the higher the self-efficacy perspectives. Additional experience likely yields more knowledge of and opportunities to integrate labor support interventions into daily practice, leading nurses to become proficient and even experts in the interventions. There was no difference in self-efficacy perspectives when comparing individual certifications, however, as a whole, nurses who held a certification had significantly higher labor support self-efficacy than nurses who did not hold a certification. This is unsurprising, as certifications validate clinical skills and expertise and can indicate professional competence with delivery of higher quality care (American Board of Nursing Specialties, 2020). When nurses have high self-efficacy, they see

tasks as goals rather than obstacles; thus, certifications can improve confidence and performance in daily skills and interventions, potentially encouraging nurses to attempt new skills and allowing more time in a shift to focus on interventions like labor support. The educational degree held by IP nurses in this study was not a predictor of self-efficacy in labor support. This finding is consistent with Barrett & Stark (2010), who discovered the same degree of labor support at each educational level. While one might think that attaining a higher educational degree might lead to increased self-efficacy as a result of more knowledge or understanding of labor support, one must also recognize that more advanced degrees do not necessarily include labor support in their curriculum. Advanced nursing degree programs often offer unique perspectives on nursing practice and theory different from those taught in associate or bachelor's degree programs, like focusing on the science opposed to art of nursing, and typically utilize traditional or didactic courses with less practicum. Further, individuals typically gain skills and their application through first-hand practice (Bohren et al., 2017). These features may influence IP nurses who hold advanced degrees to focus on other aspects of care instead of labor support. Intrapartum nurses who had personal experience giving birth had similar labor support self-efficacy perspectives as IP nurses who have not had birth, however, when accounting for the type of birth experience, those IP nurses who have given birth vaginally had significantly higher self-efficacy perspectives than IP nurses who have never given birth. This result may be due to the nurse's exposure and/or personal participation in labor support interventions while in the patient role.

Hospital characteristics were not predictors of labor support self-efficacy. There was no difference in labor support self-efficacy perspectives of IP nurses who worked at facilities with a 1:1 nurse-to-patient ratio and those who worked at facilities with a 1:2+ nurse-to-patient ratio. This is surprising, as one might expect IP nurses who have only one assigned patient to have

more time to dedicate to labor support practices, thus increasing their self-efficacy perspectives. Additionally, whether IP nurses worked in a hospital designated as a community or teaching hospital did not influence their labor support self-efficacy. Contrary to anecdotal knowledge that nurses in rural areas are more knowledgeable and practiced in nonpharmacological practices, there are no significant difference in self-efficacy perspectives of IP nurses who worked in rural versus urban hospital settings. Rural hospitals have inconsistent access to technology and interventions like in-house anesthesia or obstetrician and emergency cesarean procedures, therefore IP nurses who work in these settings often provide care more consistent with labor support practices, and thus increase their self-efficacy perspectives (United States Government Accountability Office, 2022). Perhaps in the future, we should define hospitals based on resource possession and availability rather than geographic location. Across this research, the data reveals that workplace characteristics are not significant predictors, however, there are personal characteristics that were statistically significant predictors of labor support self-efficacy.

There are known limitations to this study. Participant recruitment was bounded by geographic location, as inclusion criteria required participants to be employed in the state of Texas and be active members of AWHONN professional organization who selected to receive emails about research. Thus, participants are inherently more likely to find interest in and participate in research. Further, the alignment of participants' demographic characteristics does not match the census of the greater United States population, as many were Caucasian, female, and worked in urban settings. Another limitation includes poor survey response rates, potentially creating higher levels of error and may indicate nonresponse bias. Response rates could be impacted by the initial phases of COVID-19 when surveys were sent out. Intrapartum nurses

experienced many differences in patient populations and workplace environments during this time.

Implications

Implications are based on personal rather than workplace characteristics since personal characteristics are significant predictors of labor support self-efficacy. First, experienced IP nurses should be encouraged to mentor new nurses in providing labor support. Nurse managers and directors should assess unit resources when identifying and selecting nurse mentors. Staff nurses' clinical background; years of experience; prior experience with delivering labor support interventions; and personal birth experience, which gives nurses a unique perspective having been in the patient role and influencing care they provide, should be considered. Next, despite evidence supporting certification attainment and self-efficacy, there lacks a national certification on labor support. Intrapartum nurses should advocate for the creation of a labor support certification by national organizations to educate IP nurses on best-practices and quality care for laboring women, thus decreasing cesarean births and improving birth outcomes. Further, national organizations and unit managers should encourage IP nurses to pursue opportunities to obtain relevant certifications to increase their overall competencies as an IP nurse and potentially increase their capacity to provide continuous labor support. Future work should include evaluating additional hospital characteristics that may have an impact on labor support self-efficacy and defining survey variables to reduce response bias in self-reported survey questions.

Conclusion

Continuous labor support, when properly implemented, has the power to reduce negative labor outcomes, especially cesarean sections, and can shorten labor; decrease inter-labor fear and

anxiety; and reduce regional anesthesia use. This study aims to provide valuable information regarding IP nurses CLS self-efficacy related to personal and hospital-specific characteristics. Results from this study can be used to inform intrapartum nurses and their supervisors which personal variables to evaluate when determining how to implement or increase labor support self-efficacy.

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Appendix 1: Consent to Participate in Research



CONSENT TO PARTICIPATE IN RESEARCH

Title of Research: Exploring Labor and Delivery Nurse Childbirth and Labor Support Attitudes and Behaviors

Funded by the Alma Morten Grant

Principal Investigator: Lisette Saleh PhD, MSN, RNC-OB

Co-investigators: Bryanna Stocker (Nursing student at TCU), Martha Levine PhD, MSN, C-EFM (Outside researcher)

You are invited to participate in a research study. In order to participate, you must be a member of AWHONN, 18 years of age or older, and self-identify as an intrapartum nurse.

Taking part in this research project is voluntary.

A summary of things you should know:

- This is a research study involving human subjects that has been approved by TCU Institutional Review Board.
- The purpose of the study is to explore the childbirth attitudes and labor support of individual labor and delivery nurses in Texas as well as their unit culture. If you choose to participate in a two phase study. First, you will be asked to take an online survey which takes approximately 15 minutes. For the second phase we ask you to provide your email address and complete second short survey via email 1 month after the first, taking approximately 15 minutes.
- Risks or discomforts from this research include time it takes to complete the survey, discomfort about answering questions related to care given.
- The study will provide you no direct benefit except for completion of Phase 1 and provision of email will input you into a chance of a drawing for a 1 of 10 \$50 Amazon eGift card which will be distributed via email. By completing both phases of the study, participants will be entered into the drawing twice.
- Taking part in this research project is voluntary. You don't have to participate and you can stop at any time.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the purpose of the research? The purpose of this study is to identify relationships between childbirth attitudes of individual nurses, labor culture, and self-efficacy of labor support. Furthermore, the study seeks to identify relationships between demographic/workplace characteristics and childbirth attitudes, self-efficacy of labor support, and labor unit culture.

How many people will participate in this study?

If you decide to be in this study, you will be one of approximately 200 participants in this research study.

What is my involvement for participating in this study?

If you agree to be in the study, we will ask you to do the following things:

- Complete a Self-Generated Study ID Survey to create you a unique ID
- Complete a demographic/workplace characteristics survey
- Complete the Nurse Attitudes and Beliefs Questionnaire
- Provide your email to participate in the drawing and participate in Phase 2.
- Receive and complete via email (1 month later) the Labor Culture Survey and Self-Efficacy Labor Support Survey.
- Monitor email to see if won the drawing.

We expect your participation to take about 15 minutes for Phase 1 and 15 minutes for Phase 2. The unique study identifier will allow for linking of data from Phase 1 surveys to Phase 2. No other identifying personal information will be requested or kept. All data will be shared as aggregate data so that no participants can be identified.

How long am I expected to be in this study for and how much of my time is required?

Each phase takes approximately 15 minutes to complete and the emails are spaced 1 month apart.

What are the risks to me for participating in this study and how will they be minimized?

We don't believe there are any risks from participating in this research that are different for risk that you encounter in everyday life.

What are the benefits for participating in this study?

Although you will not directly benefit from being in this study, others might benefit because learning about individual and unit culture related to childbirth attitudes and labor support helps to identify how a labor and delivery nurse might make decisions about their nursing care or behaviors. By understanding the factors that influence

behavior we can inform future programming and research to improve confidence or assess nurse behaviors.

Will I be compensated for participating in this study?

If you choose to provide your email at the end of Phase 1 survey, you will be entered into a drawing for 1 of 10, \$50 Amazon eGift cards. If you decide to complete Phase 2, your name will be added a second time into the drawing. Winners will receive their eGift card via the email they supplied.

What is an alternative procedure(s) that I can choose instead of participating in this study?

There are no known alternatives available to you other than not taking part in this study. However, any significant new findings developed during the course of the research which may relate to your willingness to continue participation will be provided to you.

How will my confidentiality be protected? We plan to publish the results of this study. Efforts will be made to limit the use and disclosure of your personal information, including research study records, to people who have a need to review this information. We cannot promise complete secrecy. Your records may be reviewed by authorized University or other individuals who will be bound by the same provisions of confidentiality including developers of the individual surveys.

The following entities and organizations may engage in Data Processing of Your Data Records:

- the study team, including other people who, and organizations that, assist the study team:
 - o Dr. Emily White VanGompel, Dr. Sleutel, Dr. Barbara Davies (instrument developers)
- the TCU institutional review board; and
- domestic and foreign regulatory agencies and government officials who have a duty to monitor or oversee studies like this one.

What will happen to the information collected about me after the study is over?

We will keep your research data to use for future research. Information that can directly identify you will be kept secure and stored separately from the research data collected as part of the project. We may share your research data with other investigators without asking for your consent again, but it will not contain information that could directly identify you.

Is my participation voluntary?

It is totally up to you to decide to be in this research study. Participating in this study is voluntary. Even if you decide to be part of the study now, you may change your mind and stop at any time. You do not have to answer any questions you do not want to answer. If you decide to withdraw before this study is completed. You can contact the primary investigator directly to withdraw or not complete the surveys.

Who should I contact if I have questions regarding the study?

You can contact Lisette Saleh at l.m.allender@tcu.edu or 817-480-4047 with any questions that you have about the study.

Who should I contact if I have concerns regarding my rights as a study participant?

Dr. Dru Riddle, Chair, TCU Institutional Review Board, (817) 257-6811, d.riddle@tcu.edu; or Dr. Floyd Wormley, Associate Provost of Research, research.tcu.edu

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. A copy also will be kept with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I understand what the study is about and my questions so far have been answered. I agree to take part in this study.

Printed Subject Name

Signature

Date

Printed Name of person obtaining consent

Signature

Date

Appendix 2: NABQ-R

Demo/Workplace, NABQ-R 25

Start of Block: Default Question Block

Q1

Study Title: Exploring Labor and Delivery Nurse Childbirth and Labor Support Attitudes and Behaviors
Lisette Saleh PhD, MSN, RNC-OB, Martha Levine PhD, MSN, RNC-OB, C-EFM

You are being asked to be in this study because you identify as a labor/delivery nurse who works at least part time (>20 hours per week) on a labor/delivery unit. If you choose to participate, you will be asked to anonymously answer some questions online now. You will be asked for your email and a second survey will be sent via email in one month. This study is designed to learn more about the labor/delivery nurse role during childbirth and the culture of your unit. Possible discomforts or risks you may experience while in this study include: inconvenience from taking the time to complete the questionnaires, becoming emotionally upset by topics brought up by the questionnaires. There may be risks the researchers have not thought of. Every effort will be made to protect your privacy and confidentiality by using an anonymous online web-link to Qualtrics. Your email will be requested for use to send you the follow up survey and for inclusion in a drawing but will be kept completely separate from your answers. You have the choice to be in this study and it is completely voluntary, you may drop out at any time. If you have any questions please contact Lisette Saleh at 817-480-4047 or l.m.allender@tcu.edu. If you have any questions related to your rights as a participant you can contact the TCU Institutional Review Board Chair Dr. Dru Riddle at 817-257-6811, d.riddle@tcu.edu or Ms. Lorrie Branson, JD, TCU Research Integrity Officer at 817-257-4266, l.branson@tcu.edu. If you would like you click on the following link you will be able to read the [Informed Consent Form](#). By clicking yes and completing this survey, you are agreeing to participate in this research study.

I agree to participate in this study.

Yes (1)

No (2)

Skip To: End of Survey If Study Title: Exploring Labor and Delivery Nurse Childbirth and Labor Support Attitudes and Behavi... = No

Q2 I work in Labor and Delivery

- Yes (1)
- No (2)

Skip To: End of Survey If I work in Labor and Delivery = No

Q56 To protect your privacy, these surveys are anonymous. In order to link your responses while maintain your anonymity, please complete the following questions to generate your unique identification code. You will be asked these same questions for both surveys, so you do not need to remember this code. The responses will be used to generate your unique identification code. Please CAREFULLY answer the following questions.

- What is the first initial of your middle name? If you have no middle initial, write N. (1)

- What was your age in years on August 1, 2019? (2)

- What is the first letter of your mother's first name? (3)

- What is the first letter of your father's first name? (4)

- How many older brothers do you have? (5)

- How many older sisters do you have? (6)

- Does your own first name begin with a letter in the first half of the alphabet (A-M), or the second half of the alphabet (N-Z)? If A-M write first, if N-Z write second. (7)

- What is the month in which you were born? (8)

Q3 My age is

Q4 My gender is

- Male (1)
- Female (2)
- Other (3)

Q5 My race is

- White/Caucasian (1)
 - Black/African American (2)
 - Hispanic/Latino (3)
 - American Indian/Alaskan Native (4)
 - Pacific Islander (5)
 - Two or more races (6)
 - Other (7)
-

Q55 Are you serving in the Armed Forces?

- Yes (1)
- No (2)
-

Q6 Select all that apply, I (or my partner) have given birth

- Vaginally (1)
- By Cesarean (2)
- With Vacuum extraction (3)
- With Forceps (4)
- Not applicable (5)
-

Q7 Select all that apply, I (or my partner) have given birth:

- At home (1)
- At a hospital (2)
- In a freestanding birth center (3)
- Not applicable (4)
- Other (5) _____
-

Q8 Select all that apply, I would describe my (or my partners) birth experience as

Positive (1)

Negative (2)

No opinion (3)

Not applicable (4)

Other (5) _____

Q9 Select all that apply. I have completed the following degrees

- Diploma of Nursing (1)
 - Associate Degree of Nursing (2)
 - Bachelor of Science in Nursing (3)
 - Masters in Nursing (4)
 - Masters of Science in Nursing (5)
 - Doctorate of Nursing Practice (6)
 - Nurse Doctorate (7)
 - Doctorate of Nursing Science (8)
 - Doctorate of Philosophy in Nursing (9)
-

Q10 Select all that apply. I have the following certifications

- Electronic fetal monitoring (1)
- In-patient intrapartum nursing (2)
- Childbirth education (3)
- Nurse midwifery (4)
- Certified nurse specialist (5)
- Nurse practitioner (6)
- Doula (7)
- Not applicable (8)
- Other (9) _____

Q11 Total years I have worked as an intrapartum nurse

Q12 Select all that apply. In my career, I have had experience with the following

- Elective inductions of labor (1)
- Augmented labors (2)
- Cesarean birth (3)
- Elective cesarean (with no medical indication) (4)
- Epidural anesthesia (5)
- Unmedicated vaginal birth (6)
- Forceps delivery (7)
- Vacuum extraction (8)
- Episiotomy (9)
- Ambulation during labor (10)
- Continuous fetal monitoring (11)
- Intermittent fetal monitoring (12)
- Laboring down (13)
- Use of closed glottis pushing (14)
- Use of open glottis pushing (15)
- Use of breathing and relaxation techniques (16)

- Encouraging upright positioning during labor and birth (17)
 - Birth plans (18)
 - Doulas (19)
 - Freestanding birth centers (20)
 - Homebirth (21)
-

Q13 In which of the following geographic areas do you primarily practice:

- Gulf Coastal Plains (1)
 - North Central Plains (2)
 - Great Plains (3)
 - Mountains and Basins (4)
-

Q14 What is the geographical setting of your primary workplace?

- Frontier (1)
 - Rural (2)
 - Suburban (3)
 - Urban (4)
-

Q54 The name of the hospital you work at on the labor/delivery unit. This will be used to group individuals who work on the same unit but will not be used for any other purpose and kept separate from your contact information.

Q15 What type of setting is your primary practice site?

- Community Hospital (1)
- Teaching Hospital (2)
- Free-standing Birth Center (3)
- Other (4) _____

Q16 Does your practice setting have Magnet designation?

- Yes (1)
- No (2)
- I don't know / Not sure (3)

Q17 Does your practice setting have World Health Organization (WHO) Baby Friendly certification?

- No (1)
- Yes (2)
- In the process now (3)
- Were not successful (4)

Q18 What type of physical room configuration does your primary practice setting have?

- LDR (Labor/Delivery/Recovery room with separate Mother/Baby unit (1)
- LDR (Labor/Delivery/Recovery with separate Postpartum and Nursery units (2)
- LDRP (Labor/Delivery/Recovery/Postpartum Rooms) (3)
- Other (4) _____

Q19 Approximately how many labor/birth (LDR or LDRP) rooms does your primary practice setting have?

Q53 Which labor and delivery nursing station/desk design is closest to your hospital unit?

- Centralized - One large nursing desk for all nurses central to patient rooms (1)
- Decentralized - Several nursing desks around unit, not all nurses at one desk (2)

Q20 Approximately how many births take place annually at your facility?

- up to 500 (1)
 - 501-1000 (2)
 - 1001-2000 (3)
 - Greater than 2000 (4)
-

Q21 What is the most common staffing ratio of RNs to patients on your unit when patients are in active labor?

- 1 RN to 1 patient in active labor (1)
 - 1 RN to 2 patients in active labor (2)
 - 1 RN to more than 2 patients in active labor (3)
-

Q22 Where do you chart/document the majority of PATIENT CARE at your primary workplace?

- Only paper charting (1)
 - Using only 1 Type of computer documentation system (2)
 - Use 2 different computer documentation systems (e.g. 1 for fetal monitoring and 1 for Postpartum/Orders/Labs (3)
 - A combination of paper and computer charting (4)
-

Q23 What nursing practice model is used at your primary practice setting?

Nurse-Managed Labor Model:The provider is usually off-site: at home or seeing patients in their office. Communication is limited to "as needed" between the labor nurse and the Healthcare Provider, L/D RNs make clinical decisions during admission and the labor process. Provider only comes to the unit/bedside when delivery is imminent.

Academic/Teaching Model: Both physician residents-in-training and faculty attending physicians (MDs) are always present on the labor unit. L/D RNs do not routinely perform vaginal exams to assess labor progress, instead, the residents do this. L/D RNs are encouraged to communicate frequently about labor management decisions with resident MDs rather than the attending MDs. The resident MDs consult with their faculty-attending MDs to make most of the decisions about labor management. Consequently, the L/D RN and the resident MDs share joint responsibility for the hands-on, direct clinical care.

Nurse-Attending Physician Communicate On-Site Model: There is an MD present in the hospital at all times. MD can be either an attending MD covering all women in labor (i.e. "a laborist or deck doc") or a

designated MD from each practice group that remains in-house and covers that groups labor patients. The L/D RN still provides most of the hands-on clinical care.

Nurse-Nurse-Midwife Communicate On-Site Model: A nurse midwife (CNM) remains in-house covering their patients in labor. The L/D RN and the CNM collaborate on labor management decisions and communicate in person. The L/D RN and the CNM share responsibility for the hands-on clinical care.

- Nurse-Managed Labor Model (1)
 - Academic/Teaching Model (2)
 - Nurse-Attending Physician Communicate On-Site Model (3)
 - Nurse-Nurse-Midwife Communicate On-Site Model (4)
-

Q24

What is the acuity level of the unit you are primarily working on?

Level I: Care for healthy, term low-risk, mothers and infants. Preterm and high-risk mothers and infants are transferred to facilities with a NICU
Level II: Provide Level 1 care for infants born ≥ 32 weeks gestation and weighing ≥ 1500 gm. Also provide care for infants who are feeding/growing or convalescing after NICU. Higher-risk patients are transferred to facilities with higher level NICUs.

Level III: Provide comprehensive care for infants born at all gestational ages and birth weights with critical illness and access to a full range of pediatric medical specialists and sub-specialists.

Level IV: Provide Level III care plus can provide surgical repair of complex congenital or acquired conditions

- Level I (1)
 - Level II (2)
 - Level III (3)
 - Level IV (4)
-

Q25 Estimated percentage of overall births that are cesarean sections

- Below 10% (1)
 - 10-20% (2)
 - 21-30% (3)
 - 31-40% (4)
 - 41-50% (5)
 - Greater than 51% (6)
-

Q26 Does your facility allow elective (non-medically indicated) inductions of patients LESS than 39 weeks?

- Yes (1)
 - No (2)
-

Q27 Estimated percentage of elective inductions (not medically indicated)

- Up to 10% (1)
 - 10-20% (2)
 - 21-30% (3)
 - 31-40% (4)
 - 41-50% (5)
 - Greater than 51% (6)
-

Q28 Estimated percentage of patients who use epidurals for pain relief

- 0-20% (1)
 - 21-40% (2)
 - 41-60% (3)
 - 61-80% (4)
 - 81-100% (5)
-

Q29 Estimated percentage of patients who use continuous fetal monitoring (for at least one-half of their labor)

- 0-30% (1)
- 31-70% (2)
- 71-100% (3)
-

Q30 Do providers at your facility attend water-births?

- Yes (1)
- No (2)
-

Q31 Does your facility have 24 hour in-house anesthesia coverage?

- Yes (1)
- No (2)
-

Q32

Professional labor support has been defined as the use of continuous presences, emotional support (reassurance, encouragement, and guidance); physical comforting (assistance in carrying out coping techniques, use of touch, massage, heat and cold, hydrotherapy, positioning, and movement); information and guidance for the woman and her partner; facilitation of communication (assisting the woman to express her needs and wishes); and non-medical information and advice, anticipatory

guidance, and explanations of procedures of procedures at your workplace, are there things that prevent you from providing professional labor support?

Yes (1)

No (2)

Q33 Which of the following are barriers to providing professional labor support? (Select all that apply)

- Staffing (1)
 - Patient charting or documentation (2)
 - Lack of experience or knowledge providing labor support (3)
 - I don't see the benefit of labor support (4)
 - Labor support is not valued by my co-workers (5)
 - Labor support is not valued by administration (6)
 - Labor support is not valued by providers (physicians or midwives) (7)
 - Labor support is not valued by client/patient (8)
 - Compassion fatigue (defined as a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant emotional pain and physical distress) (9)
 - Language barrier (10)
 - Lack of supplies/resources to provide labor support (11)
 - Other (12) _____
-

Q34 Which of the following do you use in your facility? (Select all that apply)

- Hydrotherapy (1)
- Peanut balls (2)
- Birthing balls (3)
- Birthing stools (4)
- Nitrous Oxide (5)
- Sterile water injections for back pain (6)
- "Walking" epidurals (7)
- Intermittent auscultation of fetal heart rate (8)
- Telemetry for Continuous Electronic Fetal Monitoring (9)
- Eating during labor (10)
- Eating after epidural anesthesia administration (11)
- Drinking liquids after epidural anesthesia administration (12)
- Hospital provided doulas (13)
- Use of open-glottis pushing (14)
- Use of closed-glottis pushing (15)
- Routing use of elective inductions of labor (16)

- Ambulation during labor (17)
 - The use of upright positioning during labor and pushing (18)
 - Upright and alternative positions during birth (not lithotomy) (19)
 - None of the above (20)
-

Q35

This is a questionnaire about nurses' attitudes and beliefs about childbirth. There are no right or wrong answers. We are asking questions about some sensitive issues. We recognized that sometimes it is not easy to be completely frank and honest, but your answers will help us better understand nurses'

attitudes toward these important issues.

This questionnaire is confidential. We are asking you to rate the items based on your personal beliefs about the statements. Some of the questions might seem repetitive, but each item should be considered independently.

Q36

Please read each statement carefully and answer to the best of your ability. NABQ-R

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
When a woman is in labor, the safest place for her to be is in the hospital. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doulas improve maternal and newborn outcomes. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of epidural analgesia early in labor (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Breech presentations should always be delivered via cesarean. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A vaginal birth is more empowering than a cesarean delivery. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A woman who has an unexpected cesarean delivery needs an opportunity to grieve. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A woman's personal experience influences her labor progress. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nursing care can influence whether a woman has a vaginal birth or a cesarean delivery. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The cesarean delivery rate can be safely reduced. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Low risk pregnant women with breech presentation should be offered the option of vaginal birth. (10)

Childbirth is a natural, normal process. (11)

Women with low risk pregnancies should have the option to choose a home birth. (12)

 

Q2 Please read each statement carefully and answer to the best of your ability.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Epidural anesthesia increases the use of oxytocin. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vaginal breech delivery is safe for women with low risk pregnancies. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The increasing cesarean delivery rate in our country is a sign of improvement in maternity care. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Women with epidurals are unable to push adequately. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The cesarean delivery rate should be reduced. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Epidural anesthesia increases the cesarean delivery rate. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Epidural anesthesia interferes with the normal progress of labor. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Epidural anesthesia administered in early labor is associated with the development of fetal malpositions such as occiput transverse or posterior. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most women are capable of vaginal birth. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A woman's labor experience is a significant and meaningful event in her life. (10)

Giving birth at a free-standing birth center is a safe choice for women with low risk pregnancies. (11)

Vaginal birth is the ideal mode of delivery. (12)

Childbirth usually requires medical intervention. (13)

Q45 If you would like to be entered into a chance to win one of ten \$50 Amazon eGift cards please provide your email below. By providing your email you consent for us to contact you for the second short survey or if we have any further questions? We will utilize the email you provide for the drawing. This will be kept in a secure place with only the Primary Investigator having access.

NABQ-R 25 Item Version (copyright © 2015 Martha Levine)

	Item	Item Code
1	When a woman is in labor, the safest place for her to be is in the hospital.	R_hosp_safe
2	Doulas improve maternal and newborn outcomes.	doulas_improve
3	The use of epidural analgesia early in labor (< 4 cms) increases a woman's risk of cesarean delivery.	early_epid_cs
4	Breech presentations should always be delivered via cesarean.	R_breech_cs
5	A vaginal birth is more empowering than a cesarean delivery.	svd_empowering
6	A woman who has an unexpected cesarean delivery needs an opportunity to grieve.	cs_grieve

7	A woman's personal experience influences her labor progress.	personal_exper_progress
8	Nursing care can influence whether a woman has a vaginal birth or a cesarean delivery.	rns_influence_outcomes
9	The cesarean delivery rate can be safely reduced.	safe_for_cs_reduce
10	Low risk pregnant women with breech presentations should be offered the option of vaginal birth.	option_vag_breech
11	Childbirth is a natural, normal process.	birth_normal
12	Women with low risk pregnancies should have the option to choose a home birth.	homebirth_option
13	Epidural anesthesia increases the use of oxytocin.	epid_oxytocin
14	Vaginal breech delivery is safe for women with low risk pregnancies.	safety_vag_breech
15	The increasing cesarean delivery rate in our country is a sign of improvement in maternity care.	R_cs_improves
16	Women with epidurals are unable to push adequately.	epid_push
17	The cesarean delivery rate should be reduced.	cs_should_reduce
18	Epidural anesthesia increases the cesarean delivery rate.	epid_incr_cs
19	Epidural anesthesia interferes with the normal progress of labor.	epid_nl_progress
20	Epidural anesthesia administered in early labor is associated with the development of fetal malpositions such as occiput transverse or posterior.	epid_malposition
21	Most women are capable of vaginal birth.	women_capable
22	A woman's labor experience is a significant and meaningful event in her life.	labor_meaningful
23	Giving birth at a free-standing birth center is a safe choice for women with low risk pregnancies.	birthcenter_safety
24	Vaginal birth is the ideal mode of delivery.	svd_ideal
25	Childbirth usually requires medical intervention.	R_cb_req_intervent

Appendix 3: Labor Culture Survey

In the following sections, make your choice by selecting the box from the scale that most accurately represents YOUR opinion or belief. (The scale ranges from strongly disagree to strongly agree).

This section contains questions pertaining to your opinions/beliefs about maternity care:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10a) Childbirth is a natural, normal process					
10b) Having a vaginal birth is a more empowering experience than delivery by Cesarean birth					
10f) Women who deliver their baby by cesarean section miss an important life experience					
10e) An important determinant of a successful vaginal birth is the woman's own confidence in her ability to give birth					
10h) Cesarean birth is as safe as vaginal birth for women					
10g) Cesarean birth is safer for the baby than vaginal birth					

Many approaches for reducing the cesarean birth rate have been suggested. Please indicate your level of agreement with each of the approaches listed below:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11c) Providing more midwifery services					
11d) Implementing a program that supports early labor at home					
11b) Improving patient preparation for labor and birth					
11i) Eliminating routine continuous electronic fetal monitoring (EFM) for low risk patients					

11k) Providing more doula services					
11a) Changing medical and nursing education to encourage more positive attitudes toward vaginal birth					
11h) Providing more direct (in room) nursing time with laboring women					
11l) Reducing the number of inductions of labor for non-medical indications					
11g) Departmental peer review of all cesarean births not meeting ACOG/SMFM guidelines					
11f) Internal sharing of provider cesarean rates					
11e) Pre-cesarean birth peer review of all elective cesareans					

There is extensive literature about the mode of birth and pelvic floor functioning. The following questions are meant to explore how you feel about this issue.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12d) Because of the unpredictability of vaginal birth, I would prefer a scheduled cesarean section birth for myself or my partner					
12a) If my partner or I were pregnant with an apparently normal pregnancy, I would prefer an elective cesarean birth instead of a vaginal birth					
12b) I fear vaginal birth for myself or my partner as it may compromise sexual functioning					
12c) I fear vaginal birth for myself or my partner as it may lead to urinary or fecal incontinence or pelvic floor injury					

Please consider THIS hospital when answering these questions:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13g) Our L&D staff are skilled at providing effective labor coping strategies					
13a) The culture of my L&D unit supports vaginal birth and discourages overuse of cesarean sections					
13d) Staff on my L&D unit support the laboring women's informed choices, values, and preferences					
13h) In my L&D unit, labor nurses are encouraged and supported to spend the majority of their time in the room with the patient throughout her labor					
13b) There are too many cesarean births performed in my L&D unit					
13f) In my hospital, doulas who accompany women in labor are welcomed into the labor support team					
13c) Most of my patients have sufficient knowledge about vaginal and cesarean birth to make informed choices					
13e) In my L&D unit, provider work flow considerations affect medical interventions in labor					

*For permission to use this survey, please contact the corresponding author, Dr. Emily White VanGompel.

Appendix 4: Self-Efficacy Labor Support Survey

Self-Efficacy Labor Support and LSC

Start of Block: Default Question Block

Q4 As a reminder if you choose to participate, you will be asked to anonymously answer some questions online now. This study is designed to learn more about the labor/delivery nurse role during childbirth and the culture of your unit. Possible discomforts or risks you may experience while in this study include: inconvenience from taking the time to complete the questionnaires, becoming emotionally upset by topics brought up by the questionnaires. There may be risks the researchers have not thought of. Every effort will be made to protect your privacy and confidentiality by using an anonymous online web-link to Qualtrics. If you complete this survey your email will be entered a second time into the drawing for one of 10, \$50 Amazon eGift cards. You have the choice to be in this study and it is completely voluntary, you may drop out at any time. If you have any questions please contact Lisette Saleh at 817-480-4047 or l.m.allender@tcu.edu. If you have any questions related to your rights as a participant you can contact the TCU Institutional Review Board Chair Dr. Dru Riddle at 817-257-6811, d.riddle@tcu.edu or Ms. Lorrie Branson, JD, TCU Research Integrity Officer at 817-257-4266, l.branson@tcu.edu. If you would like you click on the following link you will be able to read the Informed Consent Form. By clicking yes and completing this survey, you are agreeing to participate in this research study.

I agree to continue to participate in this study. Yes (1) No (2)

Q5 To protect your privacy, these surveys are anonymous. In order to link your responses while maintain your anonymity, please complete the following questions to generate your unique identification code. You will be asked these same questions for both surveys, so you do not need to remember this

code. The responses will be used to generate your unique identification code. Please CAREFULLY answer the following questions.

What is the first initial of your middle name? If you have no middle initial, write N.

What was your age in years on August 1, 2019?

What is the first letter of your mother's first name?

What is the first letter of your father's first name?

How many older brothers do you have?

How many older sisters do you have?

Does your own first name begin with a letter in the first half of the alphabet (A-M), or the second half of the alphabet (N-Z)? If A-M write first, if N-Z write second.

What is the month in which you were born?

Q2 Please rate your skill in the following labor support techniques:

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
Physical Comfort measures (backache relief measures, nonpharmacologic pain relief)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emotional support (presence, coping, mechanisms for distress and panic situations)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information/advice (labor progress)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3 In the following sections, make your choice by selecting the box from the scale that most accurately represents YOUR opinion or belief. (The scale ranges from strongly disagree to strongly agree).

This section contains questions pertaining to your opinions/beliefs about maternity care:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Childbirth is a natural, normal process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a vaginal birth is a more empowering experience than delivery by Cesarean birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Women who deliver their baby by cesarean section miss an important life experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An important determinant of a successful vaginal birth is the woman's own confidence in her ability to give birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cesarean birth is as safe as vaginal birth for women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cesarean birth is safer for the baby than vaginal birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 Many approaches for reducing the cesarean birth rate have been suggested. Please indicate your level of agreement with each of the approaches listed below:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Providing more midwifery services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implementing a program that supports early labor at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving patient preparation for labor and birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eliminating routine continuous electronic fetal monitoring (EFM) for low risk patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing more doula services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changing medical and nursing education to encourage more positive attitudes toward vaginal birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing more direct (in room) nursing time with laboring women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing the number of inductions of labor for non-medical indications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Departmental peer review of all cesarean births not meeting ACOG/SMFM guidelines

Internal sharing of provider cesarean rates

Pre-cesarean birth peer review of all elective cesareans

Q7 There is extensive literature about the mode of birth and pelvic floor functioning. The following questions are meant to explore how you feel about this issue.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Because of the unpredictability of vaginal birth, I would prefer a scheduled cesarean section birth for myself or my partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my partner or I were pregnant with an apparently normal pregnancy. I would prefer an elective cesarean birth instead of a vaginal birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I fear vaginal birth for myself or my partner as it may compromise sexual functioning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I fear vaginal birth for myself or my partner as it may lead to urinary or fecal incontinence or pelvic floor injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Please consider THIS hospital when answering these questions:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Our L & D staff are skilled at providing effective labor coping strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The culture of my L & D unit supports vaginal birth and discourages overuse of cesarean sections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff on my L & D unit support the laboring women's informed choices, values, and preferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my L & D unit, labor nurses are encouraged and supported to spend the majority of their time in the room with the patient throughout her labor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are too many cesarean births performed in my L & D unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my hospital, doulas who accompany women in labor are welcomed into the labor support team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Most of my patients have sufficient knowledge about vaginal and cesarean birth to make informed choices

In my L & D unit, provider work flow considerations affect medical interventions in labor

End of Block: Default Question Block
