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The Influence of Nursing Labor Support on the Reduction of Cesarean Sections

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The Influence of Nursing Labor Support on the Reduction of Cesarean Sections

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Project Committee

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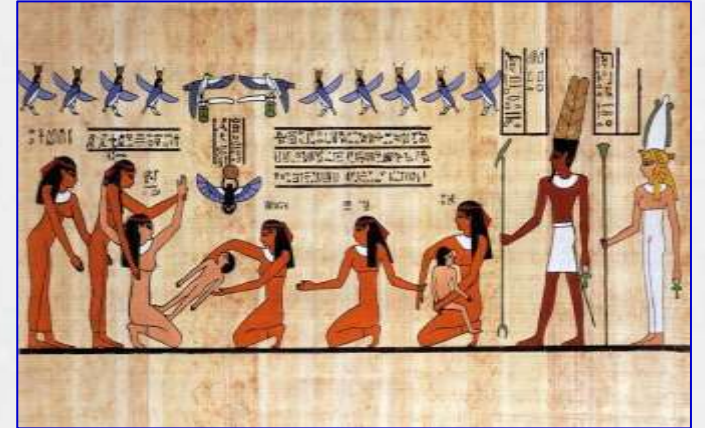
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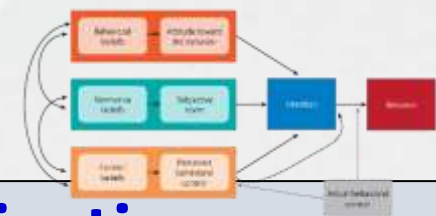


What is Labor Support?

- The intentional human interaction between a perinatal nurse and the laboring woman that assists with positive coping during the process of labor & birth.
- Recorded events in nearly all societies throughout the ages, display laboring women being helped & comforted, in a manner often referred to as **“mothering the mother”**.
- Continuous labor & delivery support:
 - One of the approaches to reduce cesarean birth rates.
 - Increases the woman’s access to nonmedical interventions during labor.
 - Has a patient-centered focus of treating the laboring woman with: KINDNESS, RESPECT, DIGNITY, & CULTURAL SENSITIVITY.
- Dimensions of Labor Support:
 - Emotional Support
 - Tangible/Physical Support
 - Informational Support
 - Advocacy



Project Purpose



Primary Objective

Incorporate a Hands-On Labor Support Class for Labor & Delivery nurses to:

- Enhance skills and knowledge of labor support techniques utilized during the first and second stage of labor.
- Reduce Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth Rate.
- Reduce Total cesarean section rate.

Secondary Objective

To compare birth beliefs of L&D nurses related to birth practice before and after attending the hands-on Labor Support Class.

- Theory of Planned Behavior (TPB). Selected to explore the links between beliefs of labor nurses and their birth practice behavior.
- Links an individual's personal beliefs as predictors of their behavior (intentions/actions), and answers the question: **"Why do we do what we do and act the way we act?"**





Project Description: 3-Components

1. An interactive 8-hour hands-on labor support class aimed at merging:
 - Contextual (mind) learning focusing on “why” & “when”.
 - Kinesthetic (hand/body) learning focusing on “what” & “how”.
2. Staff Survey: Intrapartum Nurse’s Beliefs Related to Birth Practice by Ellise D. Adams, PhD, CNM
3. The overall all process improvement strategies will enhance/clarify current knowledge, develop new techniques, provide latest information, and increase confidence in the care of laboring women thus influencing birth outcomes and impacting:
 - Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth Rate
 - Total Cesarean Section Rate



Methods

Study Design: Descriptive Mixed-Method Design

Quantitative Measures

1. Total cesarean section (C/S) rates.
2. Nulliparous, term, singleton, vertex (NTSV) cesarean birth rates.

C/S & NTSV data collection:

- *Pre-intervention: April 2019 & May 2019*
- *Post-intervention: January & February 2020*

3. Additional quantitative measures included use of the IPNBBP survey tool to analyze nurse beliefs related to normal birth in comparison to medicalized birth.

Qualitative Measures

Use of the IPNBBP tool included thematic analysis of two-open ended questions about the individual nurses' beliefs related birth practice.

1. Pre-intervention IPNBBP survey sample period occurred prior to each labor support class: 6/25/2019, 7/2/2019, 7/9/2019, 7/23/2019, 8/20/2019, 12/10/2019.
2. Post-intervention IPNBBP survey sample period occurred two months after last labor support class: March 1, 2020 – March 31, 2020.

Intervention: Labor Support Class

1. Labor Support and Management Lecture (lecture/video)
2. An interactive 8-hour hands-on labor support class aimed at merging:
 - Contextual (mind) learning focusing on “why” & “when”.
 - Kinesthetic (hand/body) learning focusing on “what” & “how”.
3. Maternal positioning in and out of birthing bed
4. Breathing techniques
5. Peanut balls
6. Birthing balls
7. Aromatherapy (4-essential oils)
8. Music therapy
9. Massage
10. Ambulation
11. Hydrotherapy (shower/tub)
12. Robozo
13. Delayed pushing in the second stage of labor
14. Use of the coping scale in assessing discomfort in labor
15. Birth Affirmations
16. What is YOUR WHY?

KINESTHETIC LEARNING





Results, Section 1: IPNBBP Survey, Quantitative Data-Intrapartum Nurse Experience

	Labor Support Class Items	Pre (N-69)	Post (N-34)	% Increase
1.	Unmedicated Vaginal Birth	67 (97.10%)	34 (100%)	2.9%
2.	Ambulation for Labor	65 (94.2%)	33 (97.06%)	2.86%
3.	Intermittent fetal monitoring	66 (95.65%)	34 (100%)	4.35%
4.	Laboring Down	69 (100%)	34 (100%)	no change
5.	Use of breathing & relaxation techniques	65 (94.2%)	34 (100%)	5.8%
6.	Hydrotherapy	26 (37.68%)	14 (41.18%)	3.5%
7.	Encouraging upright positioning during labor & birth	59 (85.51%)	30 (88.24%)	2.73%





Results, Section 2: Quantitative IPNBBP Survey Data

Variable	P-value	
Total Score	0.3209	
Medicalized Birth Scores	0.0510	No significant statistical difference (marginal significance noted)
Normal Birth Scores	0.5439	No significant statistical difference





Results: Section 3, IPNBBP Survey Qualitative Data

Questions:

1. According to my birth beliefs r/t birth practice, the birth process is:
2. According to my birth beliefs r/t birth practice, my role as an intrapartum nurse in the birth process is:

Top 5 Pre/Post Themes

- 1.Support (89)
- 2.Safety (73)
- 3.Natural/normal (48)
- 4.Teach/educate (47)
- 5.Helping (35)



Results: Quantitative Total C/S & NTSV C/S Rate

	Pre-Intervention		Post-Intervention		% Difference Pre-Post
	April 2019	May 2019	Jan 2020	February 2020	
Total Deliveries	197	250	218	201	Total C/S 3.9% higher
Total C/S Rate	27.9%(n=55)	29.2% (n=73)	26.1% (57)	32.8% (66)	
Average C/S Rate	28.55%		32.45%		NTSV C/S 1% Lower
NTSV C/S Rate	24%	19%	29%	12%	
Average NTSV Rate	21.5%		20.5%		

Clinical Implications

Hands-on Labor Support Class

- 31-Intrapartum nurse experience items assessed.

- 7-intrapartum nurse experience items included in training.
- Experience with all items, except for laboring down, increased **2.73%-5.8%** comparing pre- and post-intervention.

Intrapartum Nurse's Beliefs Related to Birth Practice Survey

- Comparison of normal birth to medicalized birth.
- 28-items

- Overall, the nurses beliefs (pre & post) are more closely associated with elements of a normal birth
- The post survey results significantly changed to fall more narrowly within the range of normal birth.

Overall all process improvement strategies will enhance/clarify current knowledge, develop new techniques, provide latest information, and increase confidence in the care of laboring women thus influencing birth outcomes and impacting.

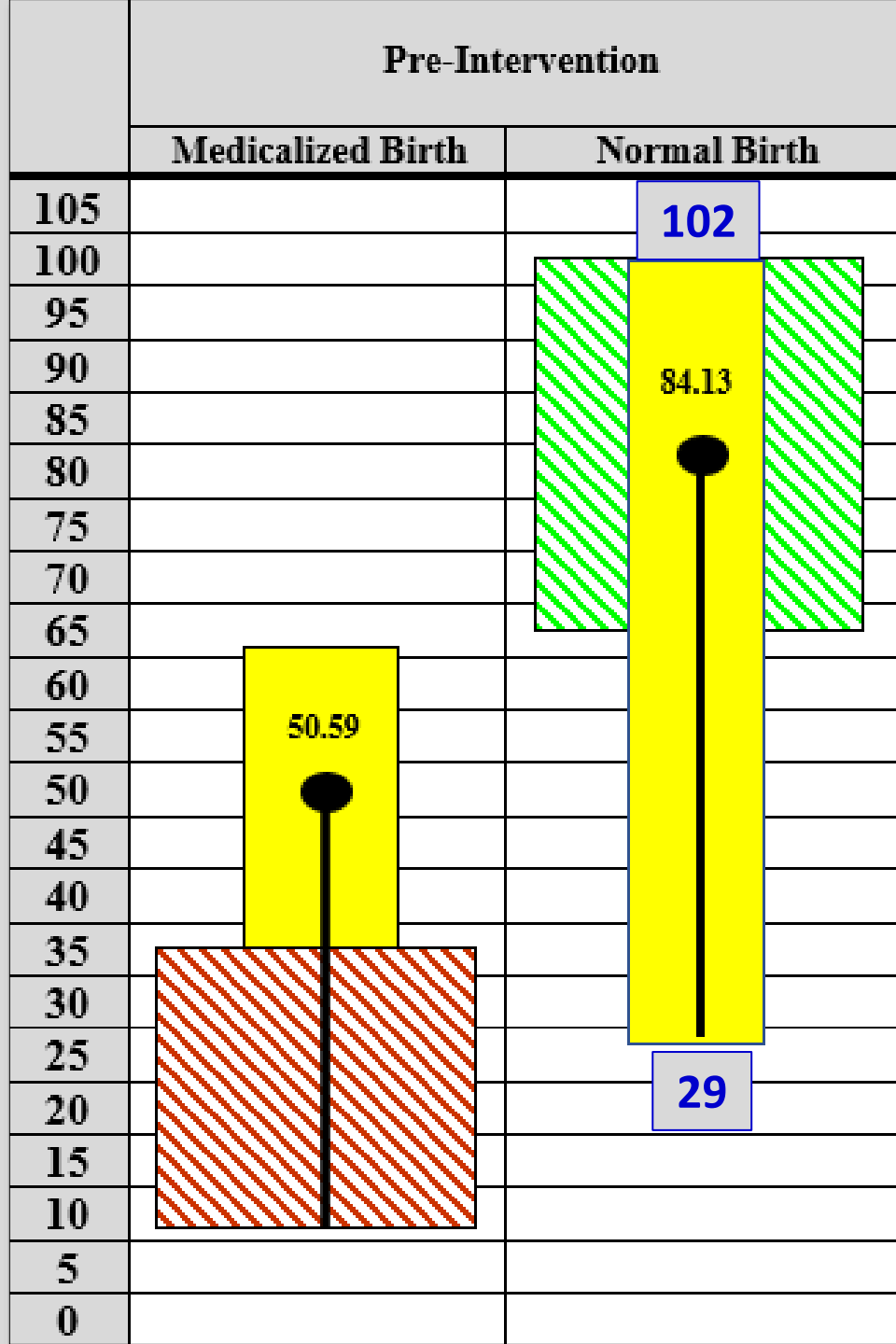
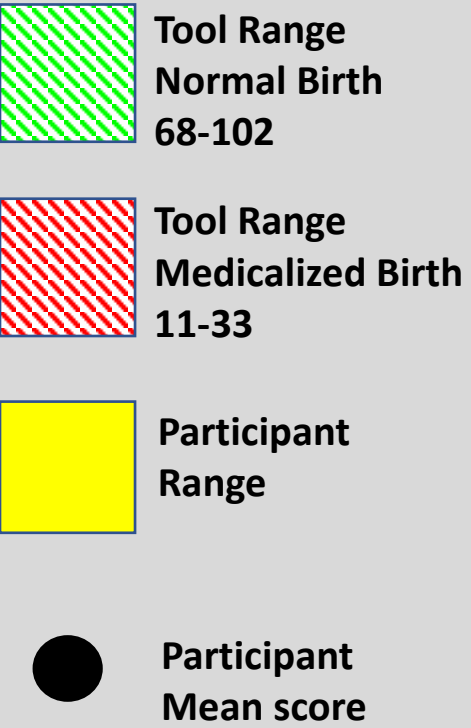
- **Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth Rate**
- **Total Cesarean Section Rate**

- NTSV cesarean rate decreased by 1%
- Total C/S rate increased by 3.9%
- It takes time & continued evaluation to see changes.
- Ongoing education of entire clinical team.



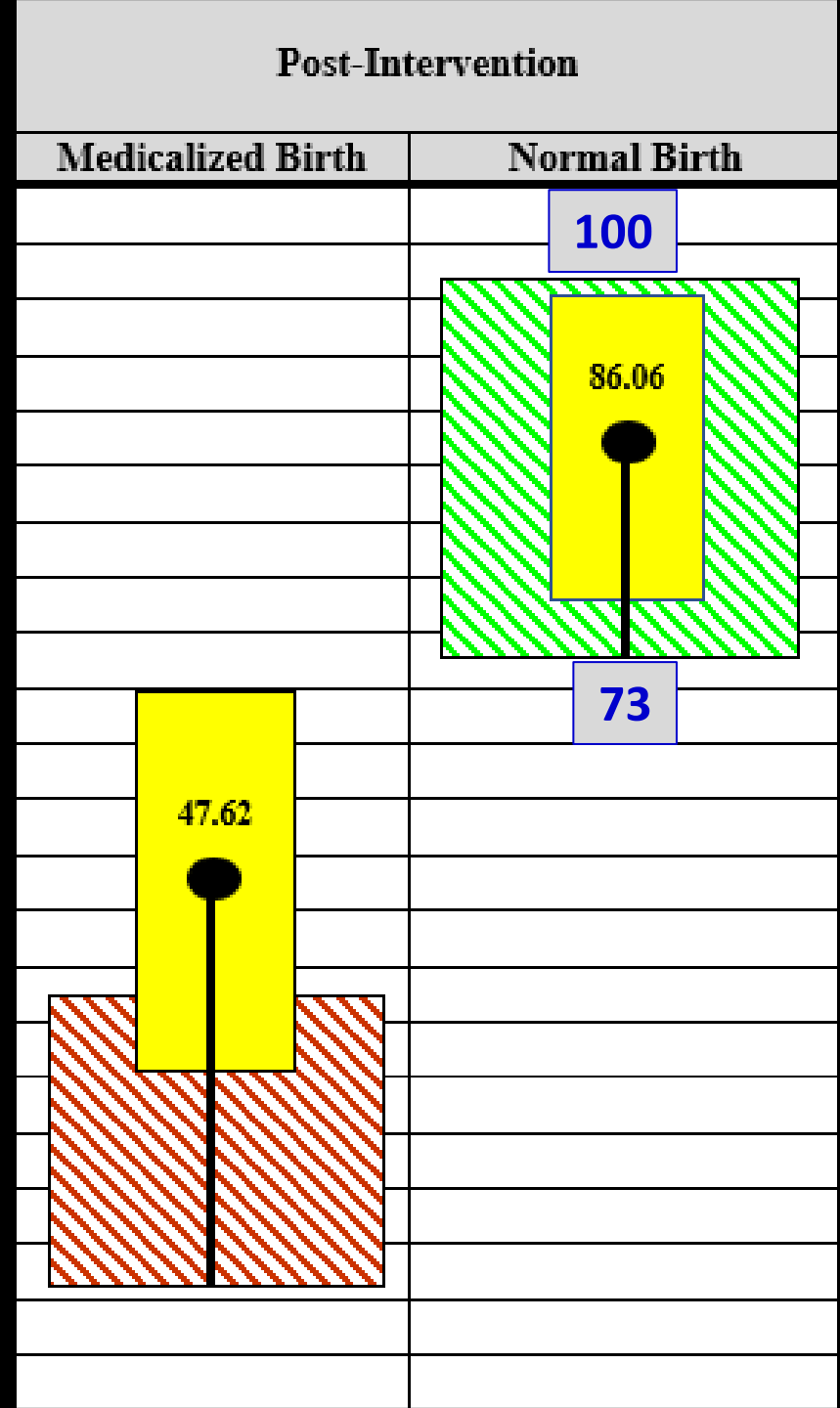
Data Analysis Results

Quantitative Score Distribution



Intervention

Labor Support Class





Barriers/Limitations

- COVID-19 Impact
 - Post intervention survey (January 2020/February 2020)
 - C/S data collection
 - NTSV cesarean birth data collection
 - Data analysis pause due to biostats critical focus on COVID-19 research
- Length of time to complete survey
- Inability to provide an electronic survey (IT barriers)
- Pre & post participation as aggregate data (**Limitations**)





Impact

- **Obstetrics Initiative (OBI)** is a Collaborative Quality Initiative (CQI) funded by Blue Cross Blue Shield of Michigan/Blue Care Network. It is comprised of 75 Michigan maternity hospitals.
- The first initiative is supporting physiologic vaginal birth and safely lowering the cesarean delivery rate among low-risk (for cesarean delivery) patients.
- The author's project used as the foundation to develop **Moving our Mamas (MOMs) Labor Support Toolkit** for the 75-participating birthing in the state of MI. Planning/Development: Q3 2020/Q4 2020. Go-live: Q1 2021 **Phase 1**: Pre-learning: What is Labor Support/RN Role? (self directed learning)
 - **Phase 2**: Facilitated virtual class: What/Why Labor Support?
 - **Phase 3**: Facilitated Hands-on Labor Support Techniques at individual sites: How?
- Team: HFHS, Ascension Health, Munson Health Care, University of Michigan, OBI)
 - Developed Labor Support Training video, Tip Sheet, Train the Trainer Class, Sample CE App.)
- Expansion/continuation of labor support research (data tool & hands-on class)





Sustainability

- **Continuing to track total C/S and NTSV cesarean birth rates**
- **Annual RN Staff Education**
- **New Hire Orientation for OB RNs**
- **Childbirth Education (CBE) Class Instructors** The labor support techniques taught in the class can be utilized to enhance the education provided to parents in the CBE Class.
- **Labor Support Grant/Funding:**
 - PI received \$900 HFHS Nursing Research Grant for project.
 - HFHS received a \$5000 grant modeled after PI's project from the Obstetrics Initiative (OBI) to provide labor support education/training for the health system.
 - MOMs Planning Team received \$8000 sponsorship from BCBS to develop a teaching/learning labor support video
- **Moving our Mamas (MOMs) Labor Support Training** (<https://www.obstetricsinitiative.org/labor-support-training>)
 - HFHS and the State of Michigan OBI participating hospitals (~75)
 - Possible expansion to other states.
- **Conference presentations**
- **Journal Publication**
- **Collaboration with other clinicians**





Take Home Message

- A personal set of beliefs related to birth practice establishes accountability to peers, patients, and society at large while also providing meaning to the work of the perinatal nurse within the context of the birth environment.
- Labor support education and training can:
 - increase nurse beliefs related to normal birth in comparison to medicalized birth.
 - enhance the maternal, newborn, family, and clinician birth experience and outcomes.



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**Thank You!
Questions?**



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