

Labor Progressive Environment:

An Evidenced-Based Approach to Primary Vaginal Delivery

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Practice Issue

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- Primary cesarean section rate in **first- time low-risk mothers** rising in U.S as high as **36.5%**
- Surpasses Healthy People 2020 goal of **23.9%**
- **Florida** C-section rate ranges from **7.35% to 59.8%**
- **Miami-Dade County** overall rate **48 %**
- Current rise yields **no clinical benefit** and is attributed to **modifiable risk factors**
- Florida Perinatal Quality Collaborative (FPQC) launches **PROVIDE Initiative**, 2017



Continuous Labor Support

- One of the **most effective tools** to improve labor and delivery outcomes
- Includes emotional support, comfort measures, information, advocacy
- Provides access to **evidence-based nonpharmacological methods** that can provide comfort and promote vaginal delivery
- Benefits include:
 - Decreased length of labor**
 - Decreased need or use of **analgesia** or **uterotonics**
 - Increased **patient satisfaction**
 - Decreased rate of **cesarean births**

Labor Progressive Environment (LPE)

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*An environment in which **continuous labor support** and utilization of **evidence-based comfort techniques** promotes the progression of labor towards **vaginal delivery**.*

Labor

The physical activities (such as dilation of the cervix and contraction of the uterus) involved in giving birth.

Progressive

Of, relating to, or characterized by progress (forward or onward movement).

Environment

The circumstances, objects, or conditions by which one is surrounded.



Goals & Objectives

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Goal: *To reduce the primary cesarean rate and the risk of adverse maternal/newborn outcomes in low-risk pregnant women through the implementation of an evidence-based **labor progressive environment**.*

Objective 1

To reduce the primary cesarean rate within 3 months.

Measure:

Pre- and post- numerical reports of primary cesarean rates on labor/delivery unit

Objective 2

To improve the nurses' knowledge of labor support skills and comfort techniques to promote vaginal delivery.

Measure:

Pre- and post- knowledge tests related to knowledge of continuous labor support & comfort techniques

Objective 3

To improve patient and family's knowledge of evidence-based non-pharmacologic comfort and coping methods during labor.

Measure:

Pre- and post- knowledge tests related to knowledge of comfort & coping measures.



Labor Progressive Environment (LPE)

Setting	Population	Champions
<ul style="list-style-type: none">• Tertiary county hospital in Miami• 16 L&D suites• 3319 births (Oct. 2018)• Average of 300 births per month	<ul style="list-style-type: none">• Nulliparous• Term• Singleton• Vertex	<ul style="list-style-type: none">• 2 CNMs• 4 Registered Nurses (2 from each shift)

Methods

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Unit Resources (Oct. 2018)	Provider Education (Oct. 2018)	Patient Education (Nov. 2018)
<ul style="list-style-type: none">• Peanut Balls• Aromatherapy & Music Therapy (Pt provided)• Coping with Labor Algorithm	<ul style="list-style-type: none">• Nurse In-service (3 sessions; day & night)• Peanut Ball Orientation• FPQC Labor Support Skills Workshop	<ul style="list-style-type: none">• Comfort measures introduced in maternity class series• Use of Peanut Ball• Music/Aromatherapy

Evaluation

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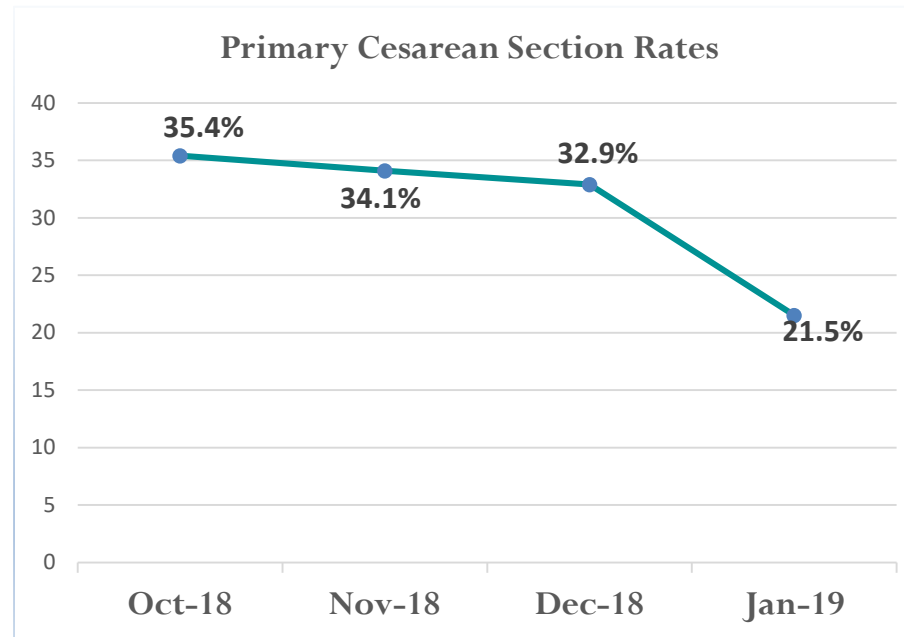
- Pre/Post Knowledge Tests
- JASP Statistical Analysis
- Paired Sample T-test



Results

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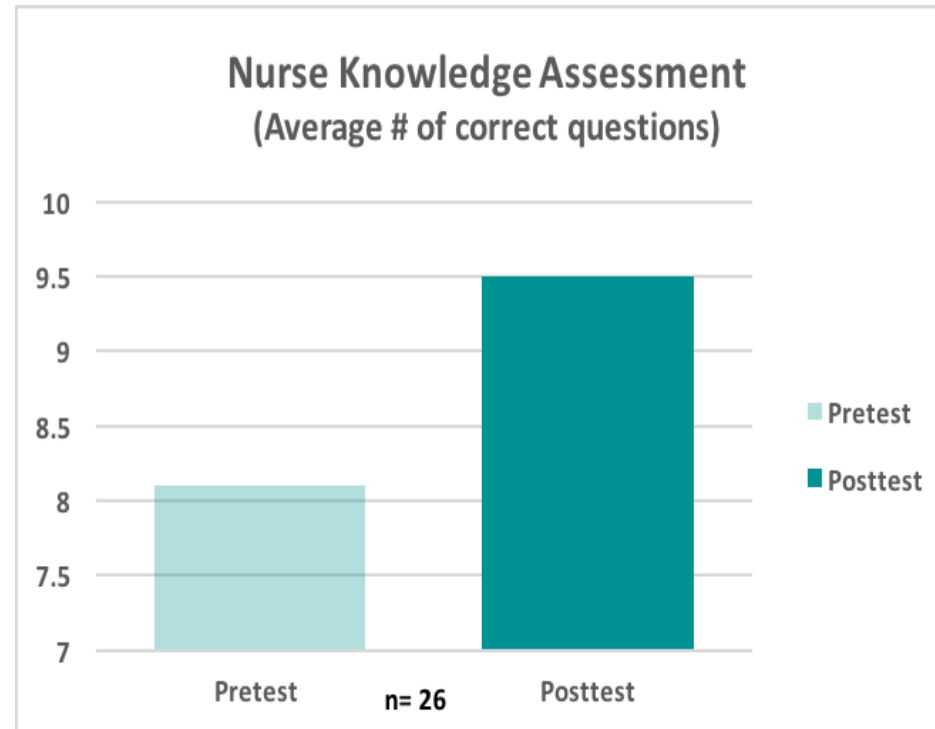
Measure 1: Primary Cesarean Section Rates



Results

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Measure 2: Nurse Knowledge



Paired Samples T-Test ▼

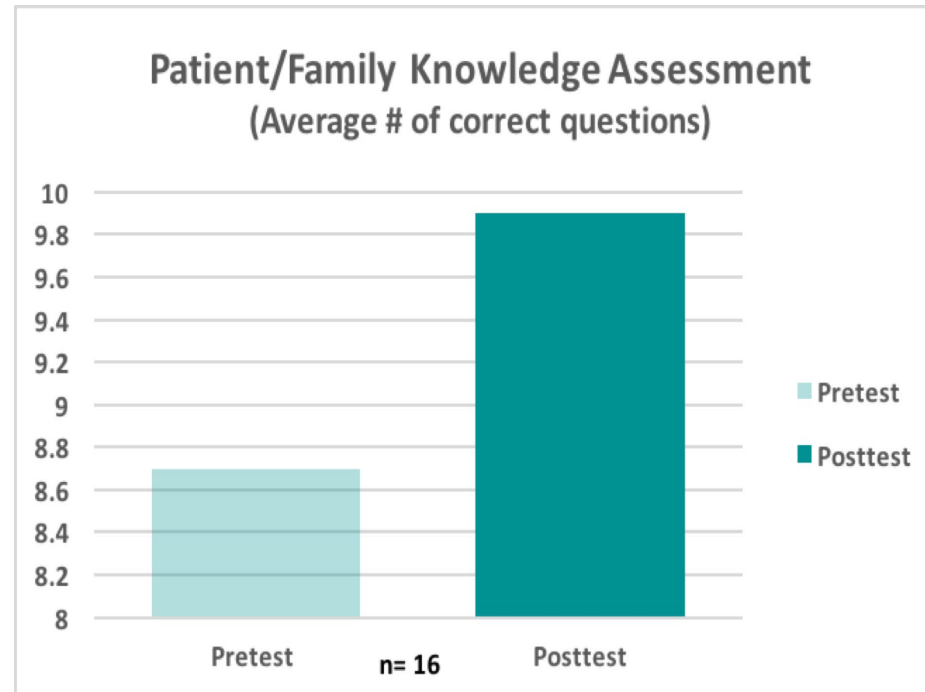
			t	df	p
Pretest	-	Posttest	-8.062	25	< .001

Note. Student's t-test.

Results

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Measure 3: Patient/Patient Knowledge



Paired Samples T-Test

			t	df	p
Pretest	-	Posttest	-3.578	15	0.003

Note. Student's t-test.

Sustainability

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- 2018 STTI Beta Tau DNP Grant Award → Additional Unit Supplies
- FPQC Provide 2.0 Initiative
- Labor Skills Workshops
- Nurse Internship Education Module
- Annual Skills Competency

Implications for Clinical Practice

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- Implementation of an evidence-based environment with continuous labor support to reduce primary cesarean section rate.
- Provide access to comfort and coping measures such as use of peanut/ birthing balls, music, or aromatherapy.
- Empower nurses through labor support skills and training.
- Educate patient/family on comfort measures & techniques

Labor Progressive Environment

An Evidenced-Based Approach to Primary Vaginal Delivery



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