

Delayed Pushing in Second Stage of Labor with Epidural Analgesia



Podium Presentation

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Cesarean Delivery



- The high rate of cesarean deliveries in the U.S. is currently a national quality of care and patient safety issue that contributes to maternal & neonatal morbidity without providing measurable benefit.
- The causes of the increased rate of cesarean delivery are complex, but variable labor management practices provide an opportunity for evidence-based practice change.



Goal of the Project

- The goal of the project was to target one evidence-based labor management strategy, delayed versus immediate active pushing in the second stage of labor for women receiving epidural analgesia, that:
 - supported physiologic labor
 - increased the chance of a vaginal delivery
 - optimized maternal and neonatal outcomes
 - decreased the rate of cesarean deliveries



Project Question

- Will delaying pushing in the second stage of labor for women receiving epidural analgesia until the presenting fetal part is well-engaged contribute to an increase in spontaneous vaginal deliveries, a decrease in the duration of time spent pushing, a decrease in instrumentally assisted and cesarean deliveries, and improved maternal and neonatal outcomes?



Project Design

- Currently, approximately 82% of patients receive epidural analgesia for pain management during labor in the project's family birth center
- The targeted population was NTSV women receiving epidural analgesia during labor
- The project intervention was to delay active pushing in the presence of epidural analgesia until the fetal head was well engaged (approximately at a plus 2 station) or the woman had a strong urge to push



Project Barriers



- Multiple stakeholders with differing perspectives and norms
- Firmly entrenched provider and nursing practices
- Provider resistance to practice change
- Interdisciplinary hierarchal conflict
- Nursing and provider change fatigue



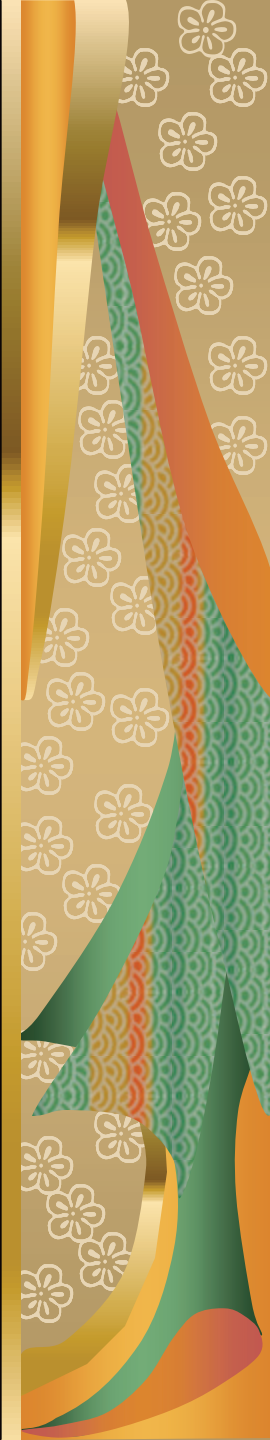
Strategies Used to Promote Successful Implementation

- Identification of key provider, nursing, and leadership champions
- Collaboration with multidisciplinary stakeholders
- Establishing a shared vision and respectful group norms
- Securing administration, nursing, and provider leadership ongoing support



Project Process

- Over a three month timeframe, fifty (50) NTSV women with epidural analgesia who delayed active pushing until the head was well engaged were compared to fifty (50) women who began active pushing as soon as they were determined to be completely dilated



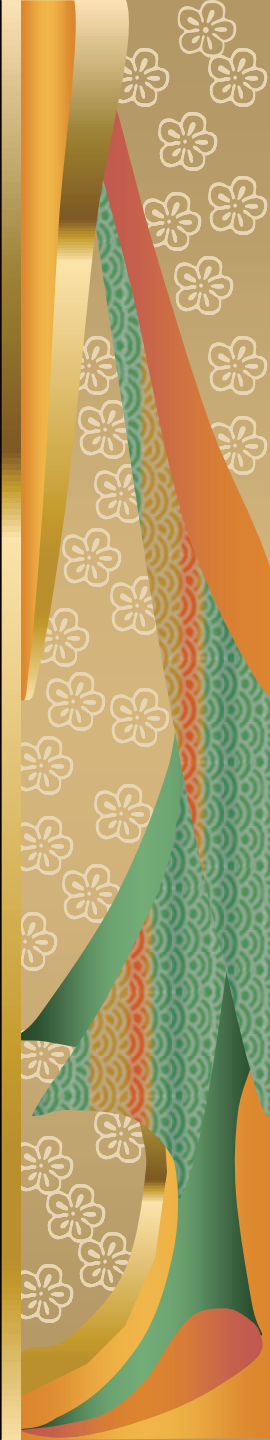
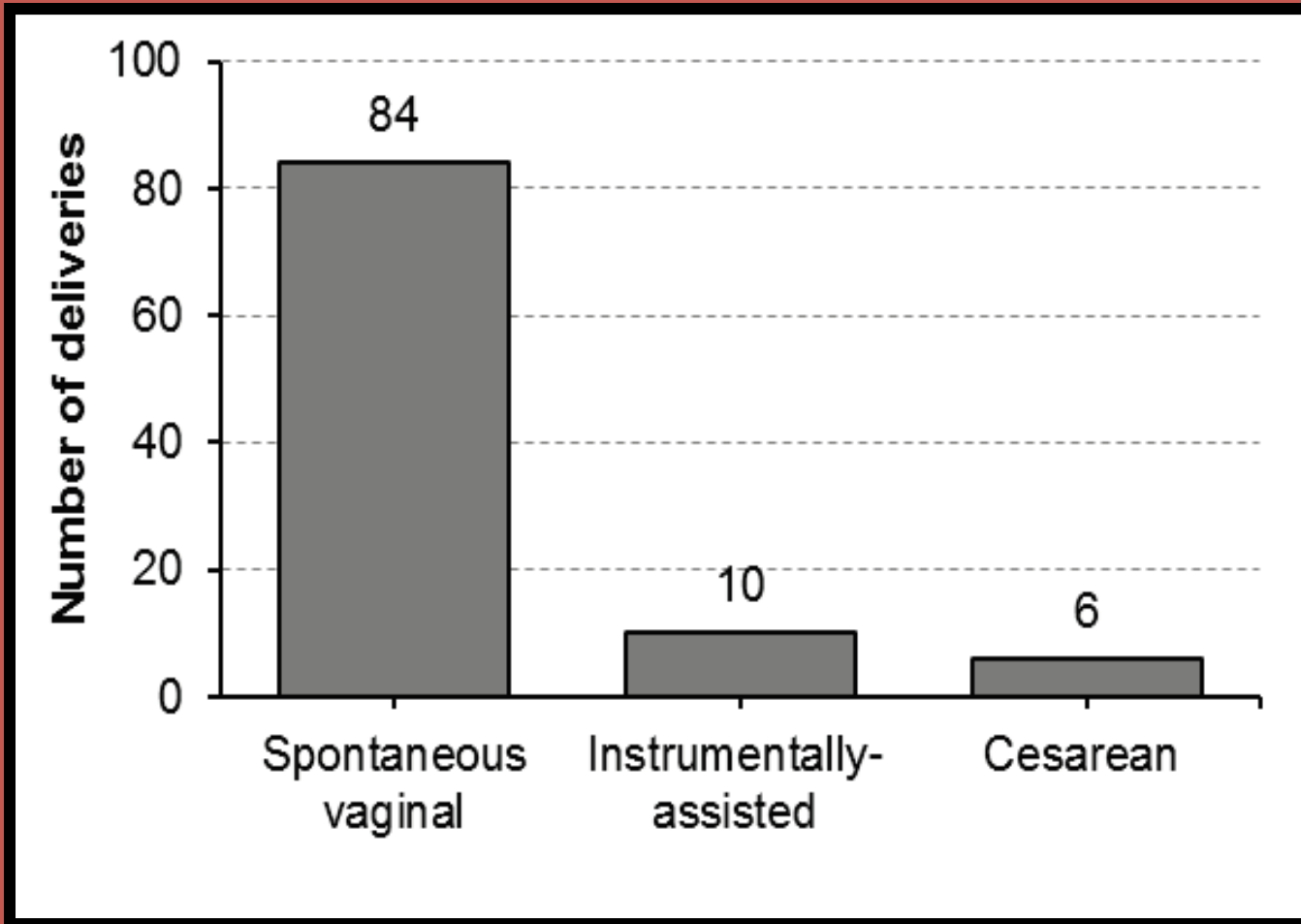
Project Evaluation

■ The groups were compared for:

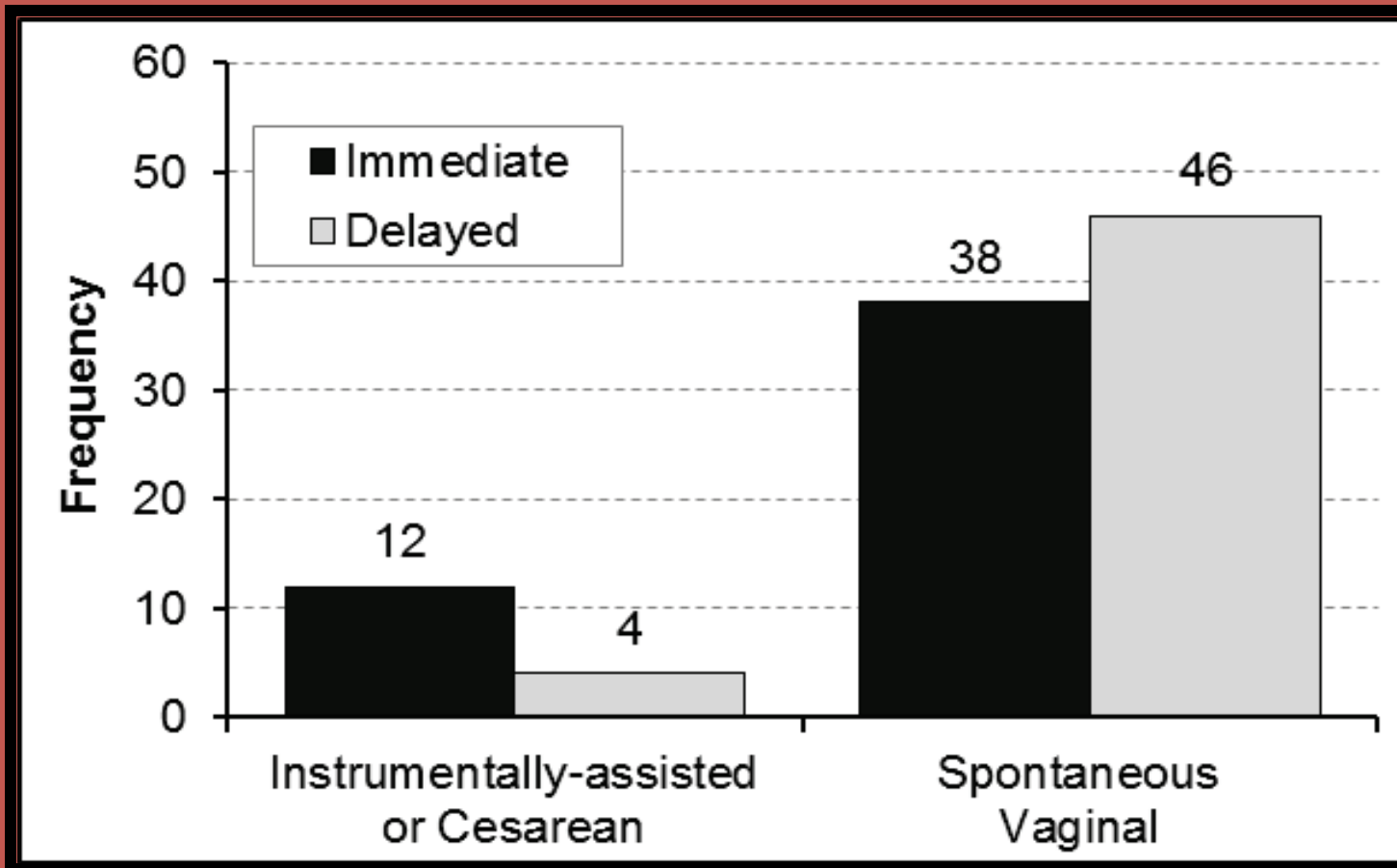
- Duration of second stage
- Duration of active pushing
- Incidence of instrumentally assisted delivery (vacuum extraction or forceps)
- Incidence of cesarean delivery
- Neonatal Apgar scores
- Neonatal admissions to NICU



Total Modes of Delivery



Type of Delivery: Immediate vs. Delayed Pushing

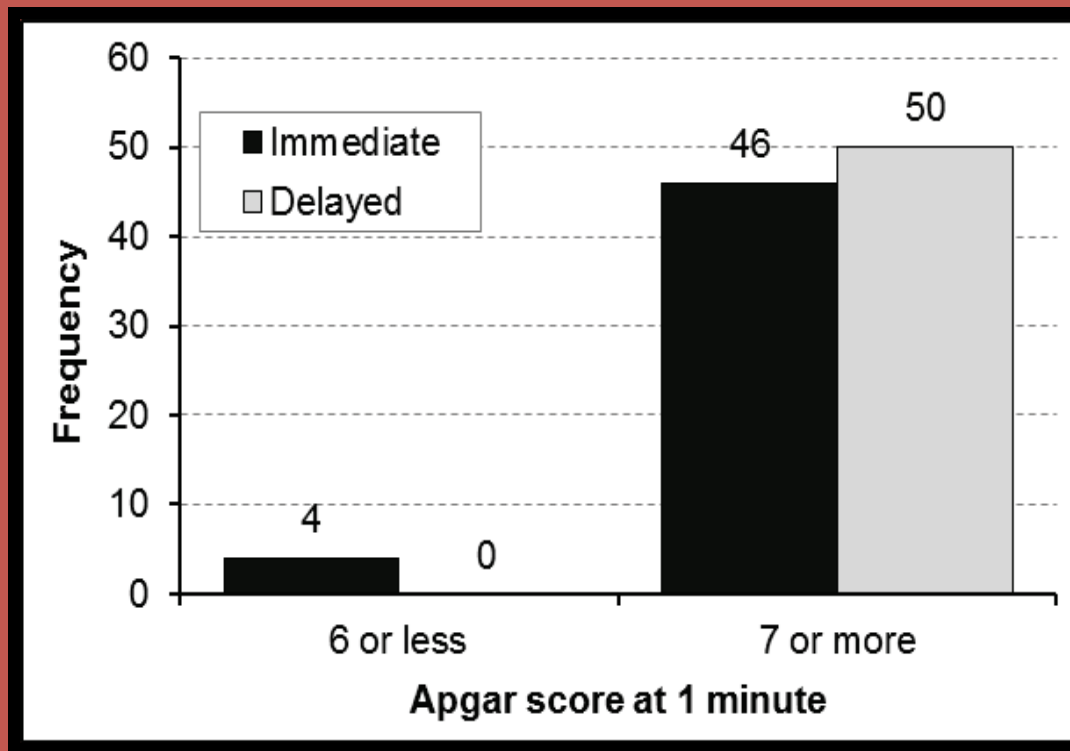


Immediate vs Delayed Pushing: Pilot Project Results

*Duration is expressed in minutes	Immediate Pushing (Median)	Delayed Pushing (Median)	Mann-Whitney U	Z	p-value
Variables					
Duration* of second stage of labor	106	94	1212.5	-0.3	0.796
Duration* of active pushing	106	32.5	528.5	-5.0	0.000
Apgar score at 1 minute	8	8	1059.5	-1.8	0.079
Apgar score at 5 minutes	9	9	1130	-1.4	0.156



Comparison of One Minute Apgar Scores between Immediate and Delayed Pushing Groups



Project Results

- The duration of second stage or neonatal outcomes did not significantly differ between groups
- Delayed pushing resulted in a significantly shorter duration of active pushing and more spontaneous vaginal deliveries
- There were more instrumentally assisted & cesarean deliveries in the immediate pushing group



Summary



- Effective nursing management of the second stage of labor in the presence of epidural analgesia may decrease:
 - duration of pushing time
 - incidence of instrumentally assisted and cesarean deliveries

- Delayed pushing does not appear to increase duration of second stage or maternal and neonatal morbidity



Thank You!

