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What's in your nursing labor toolkit? Promoting patient satisfaction while decreasing cesarean section rates.

Jennifer Isip

Damaris Peralta

Southern Illinois University Edwardsville

Hannah Zions

Southern Illinois University Edwardsville

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Introduction

Imagine you are in labor with your first baby. Providers constantly filter in and out of your room with concerns related to your slow labor progress. You are nervous and afraid and wish you had further educated yourself on the labor process. *"Unfortunately, your baby is in a difficult position that can cause your labor to stall. You are still not fully dilated, and we strongly recommend a cesarean section,"* says your healthcare provider. What do you do? What do you say?

The scenario above is where some women find themselves during the labor and delivery process. The Centers for Disease Control and Prevention (CDC) revealed that in 2020, 30.6% of babies born nationwide were delivered by cesarean section (CDC, 2022). The national average for cesarean sections increased by 60% between 1996 and 2011 (Illinois Perinatal Quality Collaboration [ILPQC], 2021). As of 2021, the Illinois cesarean section rate was 26.5% (ILPQC, 2019). While Illinois rates are considerably lower than the national average, it is higher than the goal set forth by Healthy People 2030 of 23.6% (U.S. Department of Health and Human Services, n.d.). By September 2020, Illinois failed to meet the Healthy People 2020 Nulliparous, Term, Singleton, Vertex (NTSV) cesarean section rate of 24.7% (Ezike & Borders, 2020); therefore, the ILPQC launched a statewide initiative to improve patient outcomes to promote vaginal deliveries and reduce non-medically indicated cesarean sections. The initiative encourages the utilization of a labor toolkit that promotes multidisciplinary teamwork with an emphasis on patient-centered care.

Cesarean sections are considered major abdominal surgery, which poses an increased risk of perioperative and postoperative complications, including infection, postpartum hemorrhage, and death. Subsequent pregnancies following cesarean delivery are at increased risk for

abnormal placental implantations, such as placenta accreta (ILPQC, 2021). The goal of lowering cesarean section rates can potentially contribute to the reduction of delivery complications, future pregnancy-related complications, and potential complications to the newborn. The proposed project aims to implement the ILPQC's labor toolkit to promote vaginal births and decrease cesarean section rates at the University of Illinois at Chicago Hospital and Health Sciences System (UI Health) by 3% to meet the Healthy People 2030 goal. At UI Health, patients experiencing labor dystocia lack the proper education and support needed to promote healthy vaginal delivery. The concept of labor dystocia is defined as an abnormally slow or protracted labor course that includes a lack of cervical dilation over a recommended period of time (LeFevre, Krumm & Cobb, 2021). Additionally, the organization lacks evidence-based nursing techniques to support a protracted labor course that will promote positive delivery outcomes.

According to the American Nurses Credentialing Center (2023), The Magnet Recognition Program selects organizations that tirelessly improve patient outcomes while properly educating and supporting nurses. As a result, supported nurses can provide patients with the best care. While UI Health is on the journey to become Magnet accredited, the proposed project can support nurses in their professional role while increasing patient and staff satisfaction and outcomes. This project's objective and clinical relevance is to evaluate whether utilizing educational tools to support the progress of a healthy vaginal delivery results in a decrease in the percentage of births requiring cesarean section, thus promoting positive patient outcomes, safety, and satisfaction.

Aim:

The literature review aimed to establish the relationship between maternal positioning and its effect on the mode of delivery. Specifically, how fetal malpresentation can impede labor and how clinical nursing interventions and collaborative care can minimize the risk of cesarean section by overcoming labor dystocia. In addition, a patient's experience with clinical nursing interventions utilized during labor dystocia will be examined to determine how patient satisfaction can also be affected.

Search Strategy

Nursing databases such as CINAHL Plus, Cochrane Collection, MEDLINE, Pubmed, and OVID were utilized to search for relevant articles. Search terms included *labor dystocia* and *fetal malpresentation*, and *labor dystocia or failure to progress or failure to descend with fetal malpresentation*. *Promoting vaginal birth* excluding *breech presentation*, *shared decision-making*, *patient experience*, *patient education*, *patient satisfaction*, and *maternal health* were also search terms included in the search strategy. Inclusion criteria included studies performed from 2019 to present. Studies were excluded if published prior to 2019 or if the study involved women with previous uterine incisions, including myomectomies or previous cesarean sections.

Results

Articles that met the criteria included randomized controlled trials, systematic reviews with and without meta-analysis, and cross-sectional studies. Topics included fetal malpositioning, maternal positioning during labor, promoting vaginal birth, patient satisfaction in labor, and culture change for improvement. Numerous relevant studies were published prior to 2018, which is outside of the inclusion criteria; therefore, they were excluded. PubMed yielded the most articles; however, less than ten were relevant to the topic of interest. In addition,

relevant studies derived from the reference lists of the searched studies were also evaluated and utilized when appropriate.

Maternal Positioning

Intentional maternal positioning that encourages fetal position, flexion, and descent through the bony pelvis and soft tissue of the pelvis can assist in decreasing cesarean sections (Loiacono & Allen, 2022). Aside from decreasing the risk of cesarean sections, these positioning changes can serve as a non-medical intervention that can also decrease the risk of assisted vaginal delivery and prolonged pushing during the second stage of labor (Zang et al., 2020). Nurses can play an influential role in intentionally positioning laboring women to prevent labor dystocia and improve fetal heart rate tracings (Loiacono & Allen, 2022). A randomized controlled trial by Bueno-Lopez et al. (2018) found that maternal postural intervention effectively promoted spontaneous fetal rotation from occiput posterior positioning to occiput anterior positioning, a more favorable fetal position for vaginal delivery. Approximately 50% of women in labor positioned in the Sims' position experienced fetal rotation to the occiput anterior compared to only 27% of women who were positioned freely ($P < 0.01$) (Bueno-Lopez et al., 2018). Similarly, Zang et al. (2020) found statistical significance in women utilizing flexible sacrum positioning in labor, which reduced the rate of operative delivery (RR= 0.68, 95% CI 0.50-0.91; 13 trials, 3000 women, $P < 0.1$). Flexible sacrum positioning also reduced the duration of pushing during the second stage of labor by 9.95 minutes ($P < 0.10$) (Zang et al., 2020).

Although most obstetrical providers understand the benefits of maternal positioning in labor, some providers require more knowledge on effective positioning. Garbelli & Lira (2021) found that midwives in Brescia, Northern Italy were unfamiliar with the kneeling position in

promoting the widening of pelvic diameter and resolving abnormalities in fetal heart rate. Some midwives were also unfamiliar with alternating between walking, standing, and knee-chest positioning in promoting effective uterine contractions, nor side lying on the same side as the fetal spine to correct posterior occiput positioning of the fetus, as emphasized by Bueno-Lopez et al. (2018). An evidence-based practice poster by McGrath et al. (2022) discovered that proper nurse education regarding maternal labor position changes and fetal position and station helped to decrease a Florida hospital's NTSV cesarean section rate from 28.3% to 25.9%. A labor dystocia checklist was also available to “*assist in crucial conversations*” and enhance communication with all members of the healthcare team (McGrath et al., 2022). Maternal positioning is a cost-effective, non-invasive intervention for women experiencing labor dystocia (Bueno-Lopez et al., 2018).

Unit Culture Change

McGrath et al. (2022) found that new nursing tools promoting vaginal birth, integrated with influenced providers, had changed the unit's culture. Nurses felt empowered to advocate for a vaginal birth with their new knowledge and resources, and both teams provided collaborative care. Nurses were also recognized by their leadership team for promoting vaginal birth (McGrath et al., 2022). Additionally, a study by Wahnsiedler et al. (2020) found that team communication was crucial in decreasing primary cesarean section rates for NTSV pregnancies over three years. Primary cesarean sections decreased from 34.5% to 22% by applying the *California Quality Care Collaborative (CQMCC) Toolkit to Support Vaginal Birth and Reduce Primary Cesareans* (Wahnsiedler et al., 2020).

Patient Satisfaction

Patient satisfaction is an objective viewpoint derived from various elements. A person's psychological state, such as a history of anxiety, can influence their perception of their labor. The reaction and response to stress consists of 3 main components; *emotional* (concern, anxiety, fear), *neuron-doctrine* (activation of the sympathoadrenal system), and *behavioral* (Zhuk & Shchurevska, 2020). It is essential to take preventative measures to improve womens' labor experiences by appropriately addressing anything that may alter their satisfaction. According to Zhuk & Shchurevska (2020), there is a high level of obstetrical trauma in childbirth. Preventative measures include the remediation of inflammatory processes during pregnancy, gentle delivery management with partner support, and psychological support from the medical staff (Zhuk & Shchurevska, 2020).

The perception of the labor process in pregnant women contrasts expectation vs. reality. The effects of the labor experience and the transition into motherhood still need to be fully understood. Studies have demonstrated that using maternal labor positions can improve the success rate of vaginal delivery, thus increasing patient satisfaction. According to Garbelli & Lira (2021), maternal positioning and the ability to mobilize in labor can play an essential role in birthing mechanics, including the perception of comfort and emotional support.

Researchers have found that dissatisfaction with a woman's labor experience is based on feelings of exclusion from the decision-making process regarding their provided care (Kissler et al., 2020). It supports the idea that women experience a lack of acknowledgment in the development of their labor process, which can negatively impact their viewpoint or experience. Kissler et al. (2020) further explain that transitioning from anticipated natural birth to a medical delivery alters the expectations for labor and birth. This transition can alter a patient's perception of their birthing experience. A cross-sectional study by Deki & Wangmo (2020) found that some

women reported having dreadful labor experiences (41.8%). The study also noted that improvement in communication is necessary, and a curriculum must be provided to nurses and healthcare workers in maternity services (Deki & Wangmo, 2020).

The concept of patient satisfaction is to improve a patient's overall experience. The patient desires to accomplish the goal they have set for themselves during their labor and delivery process. Implementing a shared decision-making model between patients and providers can help acknowledge patients' needs and requests. This could improve their overall experience. A study by Weiseth et al. (2022) showed that 99% of patients reported that their nurse and provider definitely or somewhat talked about their labor in a manner they could understand. Additionally, 96% of participants reported they definitely or probably felt their preferences made a difference in the care they received (Weiseth et al., 2022).

Discussion

While education is considered a basic standard of care, it needs more consistency. Thorough teaching is required for healthcare providers to be adequately educated on maternal positioning in labor advancement. Fetal positioning can significantly contribute to labor progression and cervical dilation. Non-invasive techniques to overcome labor dystocia, such as intentional maternal positioning, can encourage the rotation of the fetal head. Repositioning can result in favorable fetal descent, decreasing the likelihood of cesarean section and promoting vaginal births (Bueno-Lopez et al., 2018). Labor dystocia can be discouraging to women experiencing prolonged labor. Childbirth expectations can become incongruent with reality.

Patient satisfaction can be affected when patients experience a loss of options due to maternal fatigue, discomfort, and physiological changes in labor (Kissler et al., 2020). Patient-centered care is central to promoting vaginal birth. Patient involvement is essential for the

various and frequent position changes during such a vulnerable time. Implementing models of shared-decision making is required to assist patients in feeling heard and acknowledged. This can improve their perception of their childbirth experience while creating trust with their healthcare team. A culture change must be adopted to promote vaginal deliveries and decrease cesarean section rates. Adequate education will reinforce the benefits of maternal positioning in labor. This new teaching can encourage nurses to utilize these techniques with patients in labor. Obstetricians and midwives can also encourage its use when identifying early recognition of labor dystocia.

Conclusion

Decreasing cesarean section rates and promoting vaginal birth is a nationwide Quality Indicator (QI) initiative and a pressing obstetric concern (Peerenboom et al., 2022). The reviewed literature will guide the proposed project topic and aim by applying proper evidence-based nursing education and tools to decrease cesarean section rates and promote patient satisfaction effectively. Additionally, the literature review will guide unit culture change that will foster healthy collaboration between patients and healthcare providers. These changes will adequately assist the project location with meeting Magnet Accreditation standards. According to the ANA Enterprise (n.d.), the mission of the Magnet Recognition Program is “*to continually elevate patient care around the world in an environment where nurses, in collaboration with the interprofessional team, flourish by setting the standard for excellence through leadership, scientific discovery and dissemination and implementation of new knowledge.*” This evidence-based practice change will be a revolutionary shift in care, a necessary quality for the facility as it strongly desires to become Magnet Recognized.

References

- Agency for Healthcare Research and Quality (n.d.). *Illinois Hospital Report Card*. Illinois Department of Public Health. American Nurses Credentialing Center. (2023). *ANCC Magnet recognition program*. ANA Enterprise. Retrieved January 27, 2023, from <https://www.nursingworld.org/organizational-programs/magnet/>
- ANA Enterprise. (n.d.). *About magnet*. American nurses credentialing center (ANCC). <https://www.nursingworld.org/organizational-programs/magnet/about-magnet/>
- Bueno-Lopez, L. V., Fuentelsaz, G. C., Casellas, C. M., Falgueras, S. A. M., Crespo, B. S., Silvano, C. A. M., Alcaine, G. C., Zamoro Fuentes, M., Carreras, E., & Terré, R. C. (2018). Efficiency of the modified Sims maternal position in the rotation of persistent occiput posterior position during labor: A randomized clinical trial. *Birth: Issues in Perinatal Care*, 45(4), 385–392. <https://doi-org.libproxy.siue.edu/10.1111/birt.12347>
- Centers for Disease Control and Prevention. (2022). *Stats of the states - cesarean delivery rates*. Centers for Disease Control and Prevention. Retrieved January 29, 2023, from https://www.cdc.gov/nchs/pressroom/sosmap/cesarean_births/cesareans.htm#!
- Deki, S., & Wangmo, K. (2020). Women's views and experience of respectful maternity care while delivering in three regional referral hospitals of Bhutan. *International Journal of Nursing Education*, 12(3), 117–122.
- Ezike, N. & Borders, A. (September 9, 2020). [Letter to hospital administrators]. Retrieved from [PVB ILPQC IDPH Letter FINAL pdf](#)
- Garbelli, L. & Lira, V. (2021). Maternal positions during labor: Midwives' knowledge and

- educational needs in northern Italy. *European Journal of Midwifery*, 5(15), 1-9. doi:
<https://doi.org/10.18332/ejm/136423>
- Illinois Perinatal Quality Collaborative. (2019). *Promoting vaginal birth*. Retrieved
January 20, 2023, from <https://ilpqc.org/initiatives/promoting-vaginal-birth-initiative/>
- Illinois Perinatal Quality Collaborative (2021). A healthy start for moms and babies: promoting
best practices to support vaginal birth. Retrieved January 29, 2023,
from [https://ilpqc.org/ILPQC%202020%2B/One-
Pagers/ILPQC%20PVB%20Factsheet%2010.27.21.pdf?t=1635380306](https://ilpqc.org/ILPQC%202020%2B/One-Pagers/ILPQC%20PVB%20Factsheet%2010.27.21.pdf?t=1635380306)
- Kissler, K., Jones, J., McFarland, A. K., & Luchsinger, J. (2020). A qualitative meta-synthesis
of women's experiences of labor dystocia. *Women & Birth*, 33(4), e332–e338. [https://doi-
org.libproxy.siue.edu/10.1016/j.wombi.2019.08.001](https://doi-org.libproxy.siue.edu/10.1016/j.wombi.2019.08.001)
- LeFevre, N. M., Krumm, E., & Cobb, W. J. (2021). Labor dystocia in nulliparous patients.
American Family Physician, 103(2), 90–96.
- Loiacono, S., & Allen, R. (2022). Promoting vaginal births through labor support education for
perinatal nurses. Association of women's health, obstetric and neonatal nurses
(AWHONN) Convention, 25-29 June 2022, Aurora, Colorado. *JOGNN: Journal of
Obstetric, Gynecologic & Neonatal Nursing*, 51(4), S28. [https://doi-
org.libproxy.siue.edu/10.1016/j.jogn.2022.05.043](https://doi-org.libproxy.siue.edu/10.1016/j.jogn.2022.05.043)
- McGrath, A., Furey, P. M., Lomberk, A., & McClure, A. (2022). Roadshow promotes vaginal
births. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing*, 51(4), S43–S44.
<https://doi-org.libproxy.siue.edu/10.1016/j.jogn.2022.05.014>
- Peerenboom, R., Suse, E., Dotts, A., Morgan, J., Perrault, A., Lee King, P., & Borders, A.

- (2022). Engaging diverse hospitals in early implementation of a statewide quality improvement initiative promoting vaginal birth. *American Journal of Obstetrics & Gynecology*, 226(1), S522. <https://doi-org.libproxy.siue.edu/10.1016/j.ajog.2021.11.861>
- U.S. Department of Health and Human Services. (n.d.). *Reduce cesarean births among low-risk women with no prior births - MICH06*. Healthy People 2030. Retrieved January 29, 2023, from <https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-cesarean-births-among-low-risk-women-no-prior-births-mich-06>
- Wahnsiedler, M. J., Baxter, L., & Cunningham, E. (2020). Nurses' role in promoting an intended vaginal birth. Association of women's health, obstetric and neonatal nurses (AWHONN) Annual Convention, Nov 1-4, 2020. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing*, 49(6), S64. <https://doi-org.libproxy.siue.edu/10.1016/j.jogn.2020.09.111>
- Weiseth, A., Plough, A., Aggarwal, R., Galvin, G., Rucker, A., Henrich, N., Miller, K., Subramanian, L., Hawrusik, R., Berry, W., Gullo, S., Spigel, L., Dever, K., Loveless, D., Graham, K., Paek, B., & Shah, N. T. (2022). Improving communication and teamwork during labor: A feasibility, acceptability, and safety study. *Birth: Issues in Perinatal Care*, 49(4), 637–647. <https://doi-org.libproxy.siue.edu/10.1111/birt.12630>
- Zang, Y., Lu, H., Zhao, Y., Huang, J., Ren, L. & Li, X. (2020). Effects of flexible sacrum positions during the second stage of labour on maternal and neonatal outcomes: A systematic review and meta-analysis. *Journal of Clinical Nursing*, pp. 29, 3154–3169. doi: 10.1111/jocn.15376
- Zhuk, S. I. & Shchurevska, O. D. (2020). Maternal psychosocial stress and labor dystocia.

Wiadomosci Lekarskie (Warsaw, Poland : 1960), 73(7), 1334–1338.