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UNDERSTANDING CESAREAN BIRTH: A COMPREHENSIVE OVERVIEW OF CESAREAN BIRTH TOWARDS PATIENTS

ETHICAL DIGITAL LITERACY

(ICTF 0513)

SECTION: 558

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1) INTRODUCTION & OBJECTIVES

Surgery plays a salient role in saving people's lives while ensuring success of the surgical process, especially in the context of Caesarean Section. A C-section, also called a Cesarean Section, is a surgical procedure in which your baby is delivered through incisions in your abdomen and uterus. Most pregnant women choose to undergo this surgery to avoid risks like fetal distress, prolonged labor and placental problems. This case study aims to solely show that C-Sections can be lifesaving surgeries that doctors usually perform in emergencies or circumstances where a baby would otherwise not be safely born. It is determined to prioritize the health and safety of both mother and baby in complex pregnancies.

2) LITERATURE REVIEW

2.1 The risk of Caesarean Delivery and Postpartum Maternal Mortality

The World Health Organization (WHO) International Classification of Diseases definition of a maternal death: "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management but not from accidental or incidental causes" (World Health Organization). In France, The risk of postpartum maternal death after cesarean delivery was 3.6 times higher than vaginal delivery (odds ratio 3.64 95% confidence interval 2.15-6.19). This happens due to three causes that occur in preoperative or postoperative complications of any major surgery. Among them are venous thromboembolism, infection, and complications of anesthesia (Deneux-Tharaux & Catherine MD & MPH & Carmona & Elodie MPH & Bouvier-Colle & Marie-Hélène & Bréart & Gérard MD, 2006).

Whilst, In Brazil, the rate of Caesarean Delivery postpartum maternal death increased about three fold higher than vaginal delivery (OR 2.87, 95% CI 1.63–5.06) due to postpartum hemorrhage and complications of anesthesia (Esteves & Deneux & Nakamura & Saucedo & Bouvier & Carmo Leal, 2016). Postpartum hemorrhage is postoperative after delivery and severe vaginal bleeding. "Traditionally, PPH is defined as more than 500 mL of estimated blood loss in a vaginal delivery or more than 1000 mL of estimated blood loss during Cesarean delivery". (Kelly C. Wormer & Radia T. & Jamil & Suzanne & B. Bryant, 2024). According to a German retrospective study, CS also increased a higher risk for certain outcomes such as gestational hypertension, polyhydramnios, hemorrhage in early pregnancy, maternal care for known or suspected disproportion and long labor in subsequent pregnancy (Jacob & Taskan & Macharey & Sechet & Ziller & Kostev, 2016).

3) ANALYSIS

The analysis of factors influencing emergency versus planned cesarean sections also well known as CS, highlights key differences in their indications and associated risks. Emergency cesareans are often prompted by acute complications such as fetal distress, labor dystocia, or abnormal presentations, necessitating immediate intervention to protect maternal and infant health. Some study towards 1347 women highlights the most frequent reason was prolonged fetal distress (33.5%) followed by obstructed labor (22.2%), abnormal presentation (13.1%), and eclampsia or sudden severe high blood pressure or seizure (6.3%). These procedures tend to carry higher risks of maternal morbidity and mortality due to complications like severe hemorrhage.

On the other hand, planned cesarean sections are typically scheduled for reasons such as maternal preference, previous cesarean deliveries, or anticipated complications. Women with prior cesareans are more likely to choose this option, reflecting how past experiences influence future delivery decisions. Additionally, factors like advanced maternal age and higher education levels are associated with increased rates of planned cesareans, as older mothers may prefer surgical delivery to reduce risks. An experiment by Peipert and Bracken observed that women whose age is more than 30 years had a 70% increased risk for cesarean delivery compared with women below 30 years.

Understanding the distinctions in prenatal care is super crucial for healthcare providers to create effective care plans that improve outcomes for both mothers and infants.

4) FINDINGS AND RESULT

1. Cesarean Birth

Childbirth is the process of giving birth to a baby, which can happen through vaginal delivery or a C-section.

What actually happens during a C-section?

The first step in a C-section procedure is preparing you for anesthesia. Most planned C-sections use an epidural, so you are awake for the delivery. However, in some cases, you're asleep under general anesthesia.

An oxygen mask may be placed over your mouth and nose to improve oxygen to your unborn child after your abdomen has been treated with an antibacterial. A sterile drape is then draped across your legs and torso, as well as around the site of the incision. Lastly, your healthcare professionals lift a sterile sheet or curtain between your head and lower body.

After that, the obstetrician will cut through your skin and into your abdominal wall. They may make a transverse or vertical incision. Another name for a horizontal incision is a bikini incision.

A 3- to 4-inch incision is then made into the uterine wall by your healthcare professional. Additionally, this incision may be vertical or transverse. Lastly, the doctor makes the incisions and removes your baby. After cutting the umbilical chord and removing the placenta, the wounds are stitched and stapled shut.

The procedures for an emergency C-section are the same, but the pace at which your baby is removed varies. A scheduled C-section takes roughly ten to fifteen minutes to deliver. In an emergency C-section, your provider removes your baby in a matter of minutes.

You will be able to view and hold your baby soon after birth if you are awake during your C-section procedure.

5) BOOLEAN SEARCH USED

- 1) Analysis AND factor AND cesarean birth
- 2) emergency cesarean section AND analysis AND birth
- 3) the "impact" of "cesarean birth" against maternity
- 4) vaginal delivery OR a C-section.

6) CONCLUSION

All in all, this case study has proven that C-Sections possess their pros and cons to help mother's to deliver their infants. Therefore, future research should focus on an analytic framework strategies to reduce unnecessary cesarean birth in low-risk women and educational interventions by planning for their birth. Meanwhile, the surgeon in the C-Sections can improve their technology by utilizing robotic surgery and using artificial intelligence integration for improving patient-centered care in cesarean birth. On the other hand, based on the study's outcome, these strategies can be implemented towards the pregnant woman, that is by clinical and medical involvement, they can encourage service providers to listen to fetal heart sounds instead of continuous e-monitoring during labor.

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