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# A Study On C-Section Delivery Errors Including **Lacerations & Infections Faced By Women With Special Reference To Chennai**

#### **Author**

V.Vijaya Darshini 4th year (132001059)

Saveetha school of law,

Saveetha Institute of medical and technical sciences,

#### Co author

Mrs. Nivetha. V

Assistant Professor

Saveetha School of Law

Saveetha Institute of Medical and Technical Sciences(SIMATS)

Chennai.

#### **ABSTRACT:**

Women may face complications such as lacerations and infections, which can have significant implications for both maternal and neonatal health. Understanding these potential errors is crucial in enhancing the safety and effectiveness of C-section deliveries. The evolution of understanding C-section delivery errors, particularly concerning lacerations and infections, has been shaped by advancements in medical knowledge and technology. Over time, medical professionals have identified and refined surgical techniques to minimise complications. Government initiatives addressing C-section delivery errors, including lacerations and infections, often focus on enhancing maternal healthcare standards and patient safety. The main objective of the research is To Increase awareness among pregnant women and healthcare providers about the potential risks and complications associated with C-section deliveries. To Educate women on their rights in case of medical errors during C-sections. The study deals with empirical research i.e., non-doctrinal study. There are 212 samples collected and it deals with both primary as well as secondary sources of data and

various secondary sources like books, articles, research papers etc. were used as reference. Primary data collected through questionnaires. Age, gender, qualifications, occupation and the potential consequence of a doctor incorrectly identifying the need for a C-section. Simple percentage and graphs were used.C-section, or Caesarean section, is a common surgical procedure performed to deliver a baby through incisions in the mother's abdomen and uterus. While C-sections are generally safe, they, like any surgical intervention, carry inherent risks. Seek immediate medical attention if you experience any post-C-section complications, and consult with a healthcare professional to understand the specific issues faced. The aim of the study is to comprehensively investigate and analyze errors associated with C-section deliveries, with a specific focus on lacerations and infections, aiming to identify contributing factors, assess their impact on women's health, and propose potential strategies for improvement in clinical practices.

**KEYWORDS:** C-section, Healthcare, Surgical, Delivery errors, lacerations and infections.

#### **INTRODUCTION:**

C-section, or Caesarean section, is a common surgical procedure performed to deliver a baby through incisions in the mother's abdomen and uterus. While C-sections are generally safe, they, like any surgical intervention, carry inherent risks. Women may face complications such as lacerations and infections, which can have significant implications for both maternal and neonatal health. Understanding these potential errors is crucial in enhancing the safety and effectiveness of C-section deliveries. The evolution of understanding C-section delivery errors, particularly concerning lacerations and infections, has been shaped by advancements in medical knowledge and technology. Over time, medical professionals have identified and refined surgical techniques to minimise complications. Government initiatives addressing C-section delivery errors, including lacerations and infections, often focus on enhancing maternal healthcare standards and patient safety. Many countries have established guidelines and regulations to ensure proper training for healthcare professionals involved in C-section procedures. Additionally, governments may implement monitoring systems and quality assurance programs to track and reduce surgical errors, promoting transparency in reporting adverse events. Investing in maternal health education, preventive measures, and robust healthcare infrastructure are key components of government initiatives aimed at minimising complications associated with C-section deliveries. Several factors contribute to C-section delivery errors, including lacerations and infections. Healthcare Provider Skill and Experience: The proficiency of the medical team performing the C-section significantly influences the likelihood of errors. Hospital Protocols and Resources: Variances in hospital resources and protocols can impact the quality of care during Csections, affecting outcomes and the risk of complications. Maternal Health Conditions: Pre-existing health conditions in pregnant women, such as obesity or diabetes, may increase the likelihood of complications during and after a C-section. Emergency Situations: Unforeseen emergencies during childbirth may necessitate rapid decision-making, potentially leading to errors or complications. Infection Control Practices: Adherence to proper infection control measures before, during, and after surgery plays a crucial role in preventing postoperative infections. The current trends are Increased Emphasis on Patient Safety:

Healthcare systems are placing a greater emphasis on patient safety, leading to the development and implementation of standardised protocols to minimise errors and complications during Csections. Technology Integration: Advancements in surgical technologies, such as improved imaging and robotic-assisted procedures, aim to enhance precision and reduce the risk of complications in C-section deliveries. Data-driven Approaches: Healthcare providers are increasingly using data analytics to identify patterns, assess risk factors, and implement evidence-based practices to improve the safety of Csections. Enhanced Training Programs: Continuous education and training for healthcare professionals involved in obstetric care, specifically C-section procedures, are being emphasised to ensure proficiency and reduce errors. Shared Decision-Making: There is a growing focus on involving patients in the decisionmaking process, including discussions about the potential risks and benefits of C-sections, fostering more informed choices and reducing unnecessary interventions. It compared in other countries are Incidence: High-income countries often have higher overall C-section rates, influenced by factors such as advanced maternal age, maternal choice, and medical practices. This could contribute to an increased incidence of complications, including lacerations and infections. Healthcare Infrastructure: Advanced medical facilities and well-trained healthcare professionals in high-income countries generally contribute to lower surgical error rates. Strict adherence to protocols and advanced infection control measures is common. Government Initiatives: Developed nations often implement comprehensive healthcare regulations, quality improvement initiatives, and monitoring systems to minimise errors during C-sections. The emphasis is on evidencebased practices and continuous improvement.

#### **OBJECTIVES:**

- To Increase awareness among pregnant women and healthcare providers about the potential risks and complications associated with C-section deliveries.
- To analyse the rights of the women through C-section involving medical errors.
- To Establish support networks for women who have faced complications post-C-section.

#### **REVIEW OF LITERATURE:**

Sheikh, Munjal S(2020)Caesarean delivery is the most common inpatient surgery performed internationally. Although caesarean delivery is typically performed to prevent adverse maternal and foetal outcomes, there is still a risk of surgical errors and complications. This study examined maternal and hospital risk factors associated with errors and complications following caesarean delivery in the United States. Fabbri Daniele (2016) Physicians are often alleged responsible for the manipulation of delivery timing. We investigate this issue in a setting that negates the influence of financial incentives on physician's behaviour. Betran Ana Pilar(2018) This study takes a lifecourse approach to understanding the factors contributing to delivery methods in the US by identifying preconception and pregnancy-related determinants of medically indicated and non-medically indicated caesarean section (C-section) deliveries. Betran Ana Pilar (2018)Optimising the use of caesarean section (CS) is of global concern. Underuse leads to maternal

and perinatal mortality and morbidity. Conversely, overuse of CS has not shown benefits and can create harm. Worldwide, the frequency of CS continues to increase, and interventions to reduce unnecessary CSs have shown little success. Card David, Alessandra (2018) Caesarean delivery for low-risk pregnancies is generally associated with worse health outcomes for infants and mothers. The interpretation of this correlation, however, is confounded by potential selectivity in the choice of birth mode. We use birth records from California, merged with hospital and emergency department (ED) visits for infants and mothers in the year after birth, to study the causal health effects of caesarean delivery for low-risk first births. Rafieli, Mohammad (2018)Uncontrolled increase of C-section is one of the major problems in the Iranian health system, such that C-section is the most common surgical procedure in the entire country's hospitals in Obstetrics and Gynecology sections. A variety of complications also come along with caesarean. Neels Hedwig (2018) The ability to perform a correct pelvic floor muscle contraction (PFMC) is necessary to start pelvic floor muscle training after delivery. COMMOV are "contractions of "other "muscles (m. rectus abdominis, the gluteal muscles, and the adductors), and other "movements (pelvic tilt, breath holding, and straining) performed in addition to or instead of the PFMC. Yang Y tony (2009) Since the 1990s, nationwide rates of vaginal birth after caesarean section (VBAC) have decreased sharply and rates of caesarean section have increased sharply. Both trends are consistent with clinical behaviour aimed at reducing obstetricians' exposure to malpractice litigation.

Wilson Barbara (2021) Numerous studies have identified a relationship between nurse staffing and adverse patient outcomes in medical / surgical patient populations. However, little is known about the impact of labour and delivery (L&D) nurse staffing and adverse birth outcomes, such as unintended caesarean delivery, in low-risk term-gestation women. Melese (2020) Caesarean section is one of the most common surgeries around the world performed whenever abnormal conditions complicate labour and vaginal delivery, threatening the life or health of the mother or the baby. Although the caesarean section is a safe operation, when it is performed without medical need, it puts mothers and their babies at risk of short- and long-term health problems. However, the factors are not persistent and there is limited information concerning the levels of caesarean section delivery and its associated factors in public hospitals of North Wollo Zone. Carquillat, Pierre (2016) Psychological aspects of the childbirth experience are increasingly being considered by health practitioners and researchers in obstetrics. Particularly, women's view and feelings about their delivery experience are now recognized as an important patient outcome that is essential to evaluate. Ortner C M (2014) The percentage of women undergoing caesarean delivery under general anaesthesia has significantly decreased, which limits training opportunities for its safe administration. The purpose of this study was to evaluate how effective simulation-based training was in the learning and longterm retention of skills to perform general anaesthesia for an emergent caesarean delivery. Dorjey, Yeshey (2023) When there is an immediate threat to maternal or foetal life, it is recommended to deliver within 30 min of the decision to have favourable perinatal outcomes. However, there is no data on the delivery intervals for Category-I emergency caesarean section in Bhutan. The study evaluated the decision to deliver interval (DDI) and its effect on perinatal and maternal outcomes in Category-I emergency caesarean section. Hogle Karen (2003) We conducted a systematic search of the literature on mode of delivery in

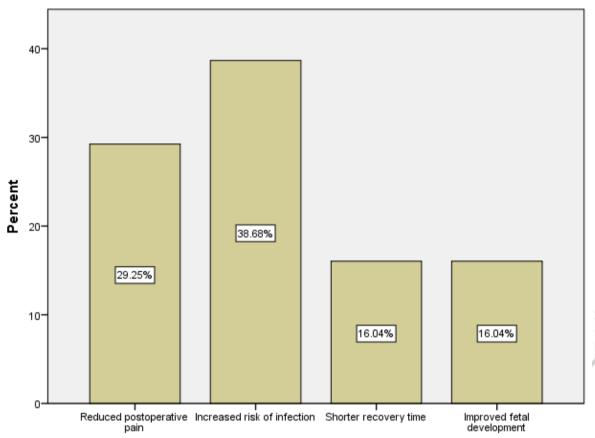
twins through a computer search of English-language abstracts in the MEDLINE and EMBASE databases. Searches were conducted by using various combinations of the following terms: twin, delivery, caesarean section, vaginal birth, birth weight, and gestational age. We also searched the Cochrane Controlled Trials Register. Our search was supplemented by cross-checking the reference lists of all extracted articles. **Fergus** Paul (2018) Human visual inspection of Cardiotocography traces is used to monitor the foetus during labour and avoid neonatal mortality and morbidity. The problem, however, is that visual interpretation of Cardiotocography traces is subject to high inter and intra observer variability. Incorrect decisions, caused by miss-interpretation, can lead to adverse perinatal outcomes and in severe cases death. Smith Gordon CS(2005) Planned caesarean section may reduce the risk of perinatal death of twins at term by approximately 75% compared with attempting vaginal birth. This is principally due to reducing the risk of death of the second twin due to intrapartum anoxia. **DominguezBello Maria**(2016) Exposure of newborns to the maternal vaginal microbiota is interrupted with caesarean birthing. Babies delivered by caesarean section (C-section) acquire a microbiota that differs from that of vaginally delivered infants, and C-section delivery has been associated with increased risk for immune and metabolic disorders. Here we conducted a pilot study in which infants delivered by C-section were exposed to maternal vaginal fluids at birth. Nam Jin Young (2017) Breastfeeding has important benefits for maternal and infant health, with previous studies suggesting that breastfeeding may offer protective benefits against PPD (Mezzacappa and Katkin, 2002, Figueiredo et al., 2014). Mothers who do not breastfeed have an increased risk for type 2 diabetes mellitus, breast and ovarian cancer, and PPD (Ip et al., 2009). Padmas Sabu S (2000) Ensuring safe pregnancy and motherhood occupies a pivotal role and has been considered as one of the key issues in the framework of reproductive and child health programmes. Evidence from research studies indicate that there is a growing tendency for caesarean section deliveries especially during complications confronted at the time of pregnancy and delivery. Clark Steven L (2007) Within broad upper and lower limits, rates of operative delivery in the United States are highly variable and suggest a pattern of almost random decision making. This reflects a lack of sufficient reliable, outcomes-based data to guide clinical decision making.

#### **RESEARCH METHODOLOGY:**

The study deals with empirical research i.e., non-doctrinal study. There are 212 samples collected and it deals with both primary as well as secondary sources of data and various secondary sources like books, articles, research papers etc. were used as reference. Primary data collected through questionnaires. Age, gender, qualifications, occupation and the potential consequence of a doctor incorrectly identifying the need for a C-section. Simple percentage and graphs were used.

ANALYSIS:

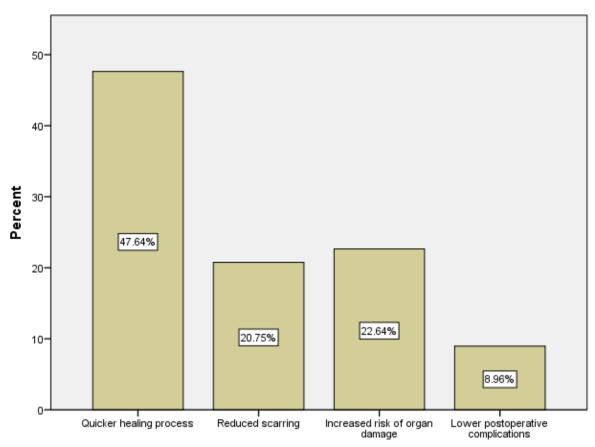
Figure 1



The potential consequence of a doctor incorrectly identifying the need for a C-section.

Legend: This figure represents the potential consequence of a doctor incorrectly identifying the need for a C-section of among the respondents.

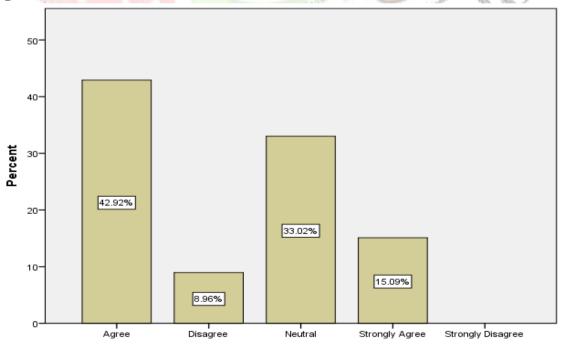
Figure 2



In the context of C-section delivery, what might be a result of improper surgical technique.

**Legend:** This figure represents the context of C-section delivery, what might be a result of improper surgical technique among the respondents.

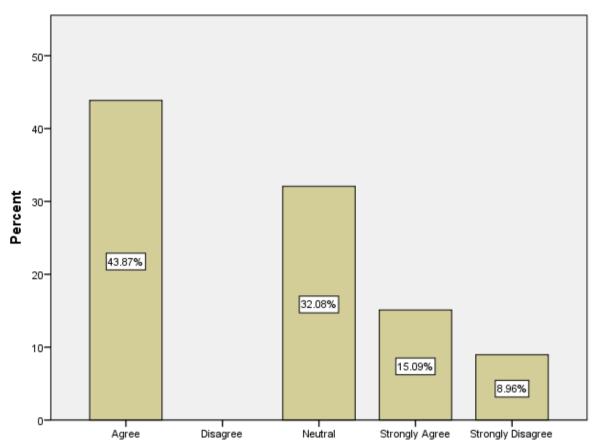
Figure 3



The level of danger for the baby or mother caused by a doctor's error when administering anesthesia during a C-section.

**Legend :** The figure represents the level of danger for the baby or mother caused by a doctor's error when administering anaesthesia during a C-section among the respondents.

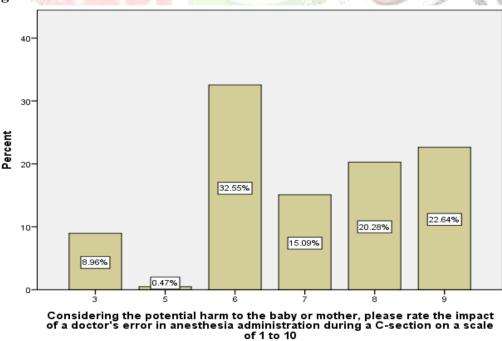
Figure 4



Reducing healthcare costs is the major way to preventing C-section delivery errors.

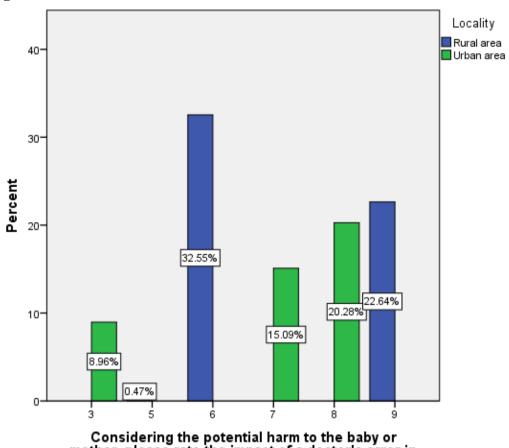
**Legend:** This figure represents the reducing healthcare costs is the major way to preventing C-section delivery errors among the respondents.

Figure 5



**Legend:** This figure represents the considering the potential harm to the baby or mother, please rate the impact of a doctor's error anaesthesia administration during a C-section on a scale of 1 to 10 among the respondents.

Figure 6



Considering the potential harm to the baby or mother, please rate the impact of a doctor's error in anesthesia administration during a C-section on a...

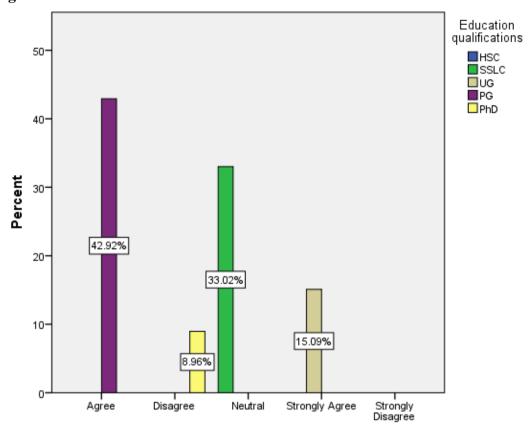
**Legend:** This figure represents that considering the potential harm to the baby or mother, please rate the impact of a doctor's error in anaesthesia administration during a C-section among the locality of the respondents.

Figure 7



**Legend:** This figure represents reducing healthy costs is the major way to preventing C-section delivery errors among the occupation of the respondents.

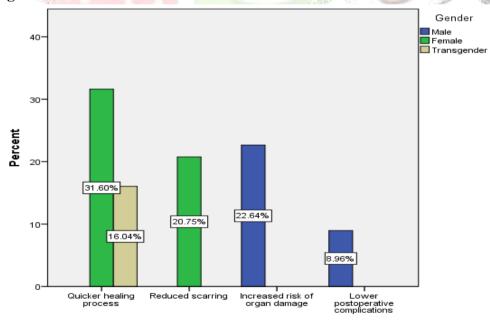
Figure 8



The level of danger for the baby or mother caused by a doctor's error when administering anesthesia during a C-section.

**Legend:** This figure represents the level of danger for the baby or mother caused by a doctor's error when administering anaesthesia during a C-section among the education qualifications of the respondents.

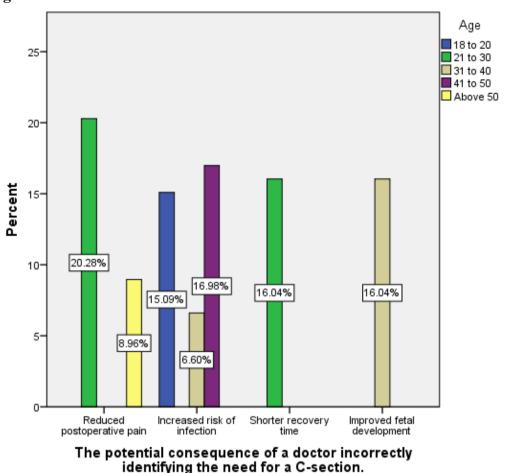
Figure 9



In the context of C-section delivery, what might be...

**Legend:** This figure represents the context of C-section delivery, what might be major cause for the error among the gender of the respondents.

Figure 10



**Legend:** This figure represents the potential consequence of a doctor incorrectly identifying the need for Csection among the age of the respondents.

#### **RESULT:**

Fig 1 represents the potential consequence of a doctor incorrectly identifying the need for a C-section among the respondents. The highest value is 38.68% responded as increased risk of infection and the lowest value is 16.04% people who responded as improved foetal development. Fig 2 represents the context of C-section delivery, what might be a result of improper surgical technique among the respondents is that 47.64% responded as a quicker healing process and the lowest value was 8.96% people responded as lower postoperative complications. Fig 3 represents the level of danger for the baby or mother caused by a doctor's error when administering anaesthesia during a C-section among the respondents, the highest alum is 42.92% who responded as agreed and the lowest value is 8.96% responded as disagree. Fig 4 represents reducing healthcare costs is the major way to prevent C-section delivery errors among the respondents. The highest value is 43.87% responded as agreed and the lowest value is 8.96% people responded as strongly disagree. Fig 5 represents the potential harm to the baby or mother, please rate the impact of a doctor's error anaesthesia administration during a C-section on a scale of 1 to 10 among the respondents there is the highest value is 32.55% responded as 3 and the lowest value is 0.47% people responded as 5.Fig 6 represents that considering the potential harm to the baby or mother, please rate the impact of a doctor's error in anaesthesia administration during a C-section among the locality of the respondents there is the highest value is 32.55% responded as 6 and the lowest value is 0.47% people responded as 5.Fig 7 represents reducing healthy costs is the major way to preventing C-section delivery errors among the occupation of the respondents there is the highest value is 20.28% responded as agree and the lowest value is 6.60% people responded as agree Fig 8 represents the level of danger for the baby or mother caused by a doctor's error when administering anaesthesia during a C-section among the education qualifications of the respondents there is the highest

value is 42.92% responded as agree and the lowest value is 8.96% people responded as disagree. Fig 9 represents the context of C-section delivery, which might be the major cause for the error among the gender of the respondents. Its highest value is 31.60% responded as a quicker healing process and the lowest value is 8.96% people responded as lower postoperative complications. Fig 10 represents the potential consequence of a doctor incorrectly identifying the need for C-section among the age of the respondents. There the highest value is 20.28% responded to reduced postoperative pain and the lowest value is 6.60% people responded as increased risk of infection.

#### **DISCUSSION:**

Fig 1 represents the potential consequence of a doctor incorrectly identifying the need for a C-section among the respondents there the people highly responded as increased risk of foetal infection. Fig 2 represents the context of C-section delivery, which might be a result of improper surgical technique among the respondents the people were highly responded to as a quicker healing process. Fig 3 represents the level of danger for the baby or mother caused by a doctor's error when administering anaesthesia during a C-section among the respondents the highest alum is to agree for that. Fig 4 represents reducing healthcare costs is the major way to prevent C-section delivery errors among the respondents there were people highly responded to agree. Fig 5 represents the potential harm to the baby or mother, please rate the impact of a doctor's error anaesthesia administration during a C-section on a scale of 1 to 10 among the respondents. Fig 6 represents that considering the potential harm to the baby or mother, please rate the impact of a doctor's error in anaesthesia administration during a C-section among the locality of the respondents. It is highly responded to as 6 by the rural area of the respondents. Fig 7 represents reducing healthy costs is the major way to prevent C-section delivery errors among the occupations of the respondents there the people highly responded as agreed by the private sector people. Fig 8 represents the level of danger for the baby or mother caused by a doctor's error when administering anaesthesia during a C-section among the education qualifications of the respondents there people highly responded as agreed by the PG respondents. Fig 9 represents the context of C-section delivery, which might be the major cause for the error among the gender of the respondents; the highest alum is quicker healing process by the female respondents. Fig 10 represents the potential consequence of a doctor incorrectly identifying the need for C-section among the age of the respondents. There, the highest alum is reduced postoperative pain by the 21 to 30 age group of the people.

#### LIMITATION:

The study is non-doctrinal and deals with empirical research. The study is unable to collect data through random sampling methods due to the reduced geographical area. Since the study is restricted to the territory within Tamil Nadu and therefore the conclusion derived by average is not perfectly accurate. Since the study collected responses from the general public at large, the findings are mostly based on generalised opinion rather than legal or scientific background.

#### **SUGGESTION:**

Seek immediate medical attention if you experience any post-C-section complications, and consult with a healthcare professional to understand the specific issues faced. If you or someone you know has experienced complications like lacerations or infections after a C-section, it's crucial to consult with a healthcare professional promptly to discuss the situation and explore potential legal options if needed.

#### **CONCLUSION:**

The evolution of understanding C-section delivery errors, particularly concerning lacerations and infections, has been shaped by advancements in medical knowledge and technology. C-section, or Caesarean section, is a common surgical procedure performed to deliver a baby through incisions in the mother's abdomen and uterus. While C-sections are generally safe, they, like any surgical intervention, carry inherent risks. Seek immediate medical attention if you experience any post-C-section complications, and consult with a healthcare professional to understand the specific issues faced. In cases of C-section delivery errors leading to lacerations or infections, prompt medical intervention and legal advice can help address and resolve the situation, prioritising the well-being of the affected women. From the analysis part the research stated that people were highly facing the C-section errors in India and affected by the delivery errors of the doctors.

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