

# The Reasons and Complications of Caesarean Sections: Section Study

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## Abstract

We can improve our knowledge of the factors influencing women's decisions to have a caesarean section rather than a vaginal delivery, slow the rise in the caesarean section rate, encourage mothers to have vaginal delivery, and provide practical solutions to health system planners through statistical analysis of the proportion of women who prefer caesarean sections. This investigation is cross-sectional. It involved gathering information from 60 women (20–42 years old) who had given birth via caesarean section over four months, beginning in October 2022 and ending in January 2023. The main reasons of a caesarean section were presence of a fibrous node (caused by previous caesarean sections that were repeated) at 16.67%, intrauterine foetal death at 15%, cervical stenosis at 8.33%, 8.33% of births were repeated due to obstructed labour; 6.66% of caesareans were carried out because the mother contracted or had her uterus removed in order to prevent having children. This study found that there were a lot of complications. The bleeding or anaemia cases accounted for the highest percentage of complications (20%), followed by high blood pressure (16.67%), high fever (10%), and either shortness of breath, blood clotting, urinary tract infection, or wound inflammation (10%). The results of the current study indicated that the level of education, the employment of mothers, and the age of the pregnant were the most important social and demographic factors for increasing the rate of caesarean sections.

**Key words:** caesarean section; vaginal delivery; labour; complications; natural birth

## Introduction

The caesarean section is the process through which the foetus, which exceeds the age of 28 weeks of pregnancy, is extracted by incision in the abdominal and uterine wall (Neilson 2003). Although this procedure refers to preserving the mother's health, it is not devoid of being a procedure that aims, at its core, to preserve the life and safety of the foetus as well. Since caesarean sections have always played a significant role in organising and facilitating childbirth over the past five centuries and have significantly decreased maternal mortality over the past 150 years, they have become one of the most crucial public health requirements globally (Low 2009). Caesarean section rates have more than tripled over the past three decades and around the world, rising from about 6% in 1990 to 21% in 2015, with notable variations between and within countries (Manyeh et al. 2018). It is important to focus on methods and strategies to lower the rate of caesarean sections, as they place a heavy burden on the health system and its sources and are linked to higher risks for the mother and the baby as well as potential complications with subsequent pregnancies (Betran et al. 2007). Recent studies confirm the previous recommendations of the World Health Organisation (WHO) about the optimal rates of caesarean section, which should remain between 5% and 10%; on the other hand, the organisation has indicated that rates above 15% represent an indication of the danger to mother and child (Silver et al. 2006). In Iraq, Sarsam et al. (2014) indicated that the caesarean section rates in different regions were as follows: 28.3% in Al-Qadisiyah, 26.2% in Baghdad, 19.8% in Maysan, and 21% in Babylon; 17.5% in Al-Muthanna;

and 17.6% in the northern region. Despite having many side effects like prenatal bleeding, foetal distress, abnormal foetal position, and high blood pressure, caesarean sections can effectively lower maternal and neonatal mortality and morbidity (Nelson 2017). When vaginal delivery is impossible or difficult, he performs a caesarean (Anderson 2008), or for more obvious reasons like long labour, uterine rupture, high blood pressure in the mother or child due to an amniotic membrane defect, or an increased in the mother's or the child's heart rate (Mylonas and Friese 2015).

The decision to perform a caesarean section may be made because of problems with the placenta (placenta previa, or placenta accreta), ineffective labour after several hours of delivery (Vandenberghe et al. 2018), or transverse position of the foetus. The inability to give birth naturally, and the difficulty of childbirth due to the large size and weight of the foetus (more than 2 kg) and the narrowness of the mother's pelvis, in addition to problems in the umbilical cord such as advanced vessels, and the multi-lobed placenta, which includes the placenta with two lobes and the placenta with an additional lobe and the integument insertion, or umbilical cord prolapse, as well as failed instrumental delivery (using forceps or vacuum) (Haas et al. 2018). In any case, complications of the caesarean section can be avoided when the necessary preventive measures are taken or with the availability of skilled medical personnel and advanced medical devices. Due to the availability of such cadres and the advancement of maternity hall equipment, many women, especially those with good financial standing, young women

who dislike the pain of vaginal delivery, or women who do not want to have more children for medical, social, or even personal reasons, prefer caesarean sections. The theory that women prefer caesarean deliveries despite being unaware of the risks is the subject of the current study.

## Methods:

### Aim of the Study:

Analysing the complications and identifying the factors that influence women's decisions to have a caesarean section through the use of statistical analysis and field research.

### Patients and Methods:

By collecting data from 60 participants who had their last caesarean section from the beginning of October 2022 to the end of January 2023. The data were collected using an interview questionnaire designed for this purpose. The information included demographic information, her education level, the reasons that made her prefer a caesarean section, and whether it resulted in complications, specifying her type if they occurred.

#### Statistical Analysis:

The Statistical Package for Social Sciences (SPSS) version 32 was used. Qualitative data is presented as numbers and percentages, whereas continuous numerical data is shown as the average or the standard deviation.

#### Ethical Considerations:

This study was performed under licenses comments of XXX university number N:345628. The consent of all participants was obtained verbally after the objectives of this study and aspects of the required data were described to them. The information collected was treated confidentially, and certain measures were applied to ensure the privacy and anonymity of the participant.

## Results:

This study included sixty women (aged 20–44 years ( $27.1 \pm 5.9$ )) who underwent caesarean sections. The lowest participation rate was in the age group (20–24 years) (11.66%), and the highest participation rate was in the age group (25–29 years) (31.66%). Half of the participants lived in rural, 22 of them (36.67%) had primary education, 16 67% had a university education, and most of the women (61.67%) non-were working (Table 1).

Caesarean sections can be performed for a variety of reasons, including the desire to have the uterus removed or contracted (6.66%), the presence of a fibrous node (due to repeated prior caesarean sections) at a rate of 16.67%, the foetal death inside the womb (15%), narrowing of the cervix and obstructed labour (8.33%), and transverse foetal position (6.66%). In 5% of cases, the patient did not go into labour because she was afraid of the pain, or she did not go into labour for medical reasons (gestational diabetes and chronic high blood pressure) (Table 2).

The current study did not favour the occurrence or non-occurrence of complications after caesarean section, as the survey results were equal. This study indicated many complications, according to what the patients stated. Pregnancy and placenta accrete were 3.33%, while the cases of high blood pressure were 16.67%, hyperthermia, dyspnoea, and thrombosis were 10%, and urinary tract infection and wound infection were 6.66% (Table 3).

## Discussion:

This study showed that the average age of the participants was  $27.1 \pm 5.9$ . These findings are consistent with previous studies by Manyeh et al. (2018) and Al-Busaidi et al. (2012). We can explain this association by the increased risk of older women developing pregnancy complications such as preeclampsia as well as reduced age-related uterine contractility. The current study showed that female participants with a primary education level constituted the highest percentage, as one of the causes of premature births

and caesarean sections is women's exposure to hard work and stress; therefore, non-employees can be involved in work other than housework (Ahmed 2016). The most effective choice in decision-making regarding the method of delivery is what is taken by obstetricians and gynaecologists, but some decisions in caesarean section are taken by the patient or her family, due to the fact that with increasing levels of education, people are more likely to obtain better job opportunities and income, which will lead to social and economic growth, and then the caesarean section rate is considered socially as a sign of a higher social status and comfort for the mother (Najarkolaei et al. 2014). The results of the current study indicated that the previous caesarean section was the important obstetric medical reason for caesarean section, most women who gave birth for the first time by caesarean section may choose the same method for the subsequent delivery, and this would lead to an increase in the number of caesarean sections in The future (Ahmed 2016). The most common reason for caesarean section is the rigidity of the cervix and its non-dilatation for pathological or functional reasons, most cases occur in virgins and the elderly (Liang et al. 2022). Among the reasons is the early bursting of the amniotic sac, as the operation is performed to burst the amniotic sac prematurely, and it occurs frequently in all abnormal conditions of the foetus, especially in the transverse position, and when it occurs, it may descend into the hands or umbilical cord into the vagina, and remains The body of the foetus is high and cannot enter the birth canal, so the condition remained without treatment, as the uterine contractions inevitably lead to the explosion and rupture of the uterus, which is a danger to the life of the mother (Lumbiganon et al. 2010).

The birth of twins and conjoined twins is considered abnormal delivery (Fuglenes et al. 2009), so there is a high possibility of dystocia or the death of one or both twins (Hannah et al. 2000). On other hand, the length of the pregnancy leads to a large foetus and labour difficulties Therefore, the doctor is forced to perform a caesarean section (Blickstein 2000). The fatigue of the foetus due to the long period of childbirth or the weakness of the uterine contraction or its disappearance causes inertia (De Vries et al. 2008), which leads to apathy or laziness at the beginning of childbirth or during it (Niemenen et al. 2009). In cases of bleeding and progression of the placenta, the caesarean section is the best procedure for saving the foetus and the mother from complications (Guise et al. 2010). Caesarean sections are performed in cases of chronic kidney disease, repeated pregnancies, malnutrition, and shortness of the umbilical cord when performing the process of rotating the foetus for fear of shock and saving the foetus from death (Gordon and Tatsis 2019). In the case of high blood pressure, a caesarean section is performed in the 22nd week of the firstborn in anticipation of the possibility of the death of the foetus inside the womb (Yang et al., 2009). foetus, which leads to the possibility of foetal death inside the womb (Vandenberghe et al. 2019). In cases such as postpartum haemorrhage, maternal epilepsy, pelvic and uterine defects, caesarean section is performed for incompatibility and between the foetal head or seat with the birth canal, as well as uterine and pelvic tumours, narrow cervix, vagina, double uterus, and rectal tumours (Kringeland et al. 2009). The results showed that anaemia is one of the most important complications of pregnancy, which caused the caesarean section, and reached the highest percentage, that the frequent incidence of anaemia among pregnant women is due to malnutrition during pregnancy, and that anaemia plays an important role in increasing the complications and risk of pregnancy and childbirth, along with other complications that affect the pregnant woman. Bleeding or high blood pressure (Foruzeshfard et al. 2013).

## Conclusions

The results of the current study indicated that the level of education, the employment of mothers, and the age of the pregnant were the most important social and demographic factors for increasing the rate of caesarean sections. The most significant obstetrical medical ustifications for a caesarean section included previous caesareans and foetal distress. The two most significant non-obstetric and non-medical causes for caesarean sections were determined to be the doctor's recommendation and the fear of labour pain.

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