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The Reasons and Complications of Caesarean Sections: Section Study

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Keywords: Caesarean section; vaginal delivery; nature delivery; Complication

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The Reasons and Complications of Caesarean Sections: Section Study

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Abstract: Background: Worldwide, the frequency of caesarean sections has significantly increased over the last 20 years. Although caesarean sections have become more common in Iraq, particularly since 2003, the majority of earlier studies did not focus on the factors that influence women's preference for them. Here, we'll examine the justifications for caesarean sections as well as their challenges. methods: This investigation 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. After letting them know the significance and goals of the research, ask them to complete the questionnaire. Result: The study was carried out on a sample of 60 women who had last delivered by caesarean section. It was found that the age group (25-29 years) is more frequent in the operation. The 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; 6.66% of caesareans were carried out as a result of the foetus being accidentally placed; and 5% of births were avoided by not having children. Due to twin pregnancies, enlarged heads of the foetuses, and umbilical cord circumference, 3.33% of caesarean sections were done. The existence of labour or the patient's anxiety of the discomfort of labour were additional explanations, as were pathological factors (such as pregnancy-related diabetes and high blood pressure). In terms of bone interference, foetal blockage, and Coronavirus infection, it developed They each make up 1.66%. of caesarean sections are the most significant factors in women's preference for a caesarean section. 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 (%), and either shortness of breath, blood clotting, urinary tract infection, or wound inflammation (10%).

Keywords: caesarean section; vaginal delivery; labour; complications

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 [1]. 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 [2].

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 [3]. 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 [4].

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 [5]. In Iraq, Sarsam *et al*. (2014) indicated that the caesarean section rates in

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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[6].

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 [7]. When vaginal delivery is impossible or difficult, he performs a caesarean [8], 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[9].

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 [10], 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) [11].

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.

Materials and 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:

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± 5.9)) who underwent caesarean sections(Table 1). 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 2).

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Table 1. Distribution the participates by age.

Age	No.	Percentage (%)
20-24	8	13.33
25-29	19	31.66
30-34	16	26.67
35-39	10	16.67
40-44	7	11.67

Table 2. Demographic distribution of Participates.

Parameters	No.	Percentage (%)
Residence		
rural	30	50
urban	30	50
Educational level		
illiterate	14	23.33
Primary	22	36.67
Secondary	14	23.33
University	10	16.67
Occupation		
Housekeeper	37	61.67
Employ	23	38.33

Table 3 shows the distribution of the studied cases according to indicators of previous pregnancies and the choice of delivery method. 35% of the participants had more than three children, 56.67% had been born by caesarean section before this operation, and most of the births were after completion Or during the ninth month of pregnancy when the percentage of births in this month was 78.33%. Likewise, 20% of pregnant women requested that a caesarean section be delivered to remove or contract the uterus, 66.67% desiring not to have a child, or because the patient was afraid of labour (25%) or because it is her first birth (8.33%).

Table 3. Distribution of the studied cases according to indicators of previous pregnancies and the choice of delivery method.

Parameters	No.	Percentage (%)
Number of previous delivery		
0	5	8.33
1	10	16.66
2	5	8.33
3	18	30
> 3	22	36.66
Type of previous delivery		
no	4	6.66
vaginal	22	36.67
Caesarian	34	56.67
Delivery month		
9	47	78.33
8	6	10
7	4	6.66
6	3	5
Is patient requested the operation		
yes	12	20

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no	48	80
Causes		
Have many children	8	66.67
Fear of labour	3	25
It's the first delivery	1	8.33

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 4).

Table 4. Caesarean section reasons.

Reasons	No.	Percentage (%)
Fibrous node	10	16.67
Foetal death	9	15
Obstructed labour	5	8.33
Narrowing of the cervix	5	8.33
Uterus removed or contracted	4	6.66
Foetal position	4	6.66
no labour	3	5
Afraid of the pain	3	5
Hypertension	3	5
gestational diabetes	3	5
Twins	2	3.33
Fetal head enlargement	2	3.33
Umbilical cord wrapping	2	3.33
Amniotic dehydration	2	3.33
Bone overlap	1	1.66
Fetal disability	1	1.66
Corona virus	1	1.66

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, Dyspnea, and Thrombosis were 10%, and urinary tract infection and wound infection were 6.66% (Table 5).

Table 5. Caesarean section complications.

Reasons	No.	Percentage (%)
Bleeding	6	20
Anaemia	6	20
Hypertension	5	16.67
Fever (hyperthermia)	3	10
Dyspnea	3	10
Thrombosis	3	10
Urinary tract infection	2	6.66
Wound infection	2	6.66

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Discussion

This study showed that the average age of the participants was 27.1 ± 5.9. 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%). These findings are consistent with previous studies by Manyeh et al. (2018)[3] and Al-Busaidi et al. (2012)[12]. 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 [13].

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 [14].

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[13].

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 [15]. 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 [16].

The birth of twins and conjoined twins is considered abnormal delivery [17], so there is a high possibility of dystocia or the death of one or both twins [18]. 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 [19].

The fatigue of the foetus due to the long period of childbirth or the weakness of the uterine contraction or its disappearance causes inertia [20], which leads to apathy or laziness at the beginning of childbirth or during it[21]. 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[22].

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 [23].

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 [24]. foetus, which leads to the possibility of foetal death inside the womb [25].

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 [26].

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 [27].

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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 justifications 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.

Recommends

Maternal and new-born health can advance through proper planning and awareness-raising during pregnancy, especially in first-time mothers, because planning will influence the course of labour and can also reduce the likelihood of future caesarean sections due to previous caesareans. The first effective step to reducing caesarean sections performed without medical consultation is to increase pregnant women's awareness of the risks and advantages of vaginal delivery and a caesarean section.

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