



(MUDIMA)



Determination of Caesarean Section (SC) Delivery

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ABSTRACT

There is a trend of increasing SC procedures in a number of hospitals, both in private hospitals and government hospitals, even though the clinical risk to mothers who give birth through SC surgery is greater than the risk of normal (vaginal) birth. Psychological risks cannot be avoided because the pain after SC surgery is longer and there are risks to the baby. The risk of adverse post-SC consequences needs to be studied further from a health ethics perspective, starting from the doctor's decision-making process in carrying out SC surgery. This research method is analytical using a cross-sectional approach (V. Wiratna Sujarweni, 2020). Time and Place of Research: Research was conducted from June-August 2023. This research was conducted at the Palembang Muhammadiyah Hospital in 2023. The number of types of birth with SC was 70 respondents and normal delivery was 26 respondents. The results of statistical tests showed that there was a significant relationship between maternal age, PEB/eclampsia, premature rupture of membranes (KPD), and gravida status, with SC delivery. From the research results it can be concluded that the type of delivery, maternal age, PEB/eclampsia, premature rupture of membranes (KPD), and gravida status, are factors that cause respondents to undergo SC delivery

INTRODUCTION

Worldwide, delivery strategies aim to improve and ensure safety during perinatal care. However, there is increasing evidence that childbirth has become a medical phenomenon with no clear cause in recent decades. Globally, the caesarean section (Sectio Caesarea/SC) rate continues to increase from 6.7% in 1990 to 21.1% in 2018 and is expected to increase to 28.5% in 2030 (Giaxi, Gourounti, Vivilaki, Zdanis, et al., 2023).

CS is a surgical procedure in which one or more babies are delivered, and it involves an open abdominal incision (laparotomy) and a uterine incision (hysterotomy). SC was first reported to have occurred in 1020 AD, and the practice has increased rapidly. The choice to perform CS is generally based on what is best for the mother and child or whatever saves their lives. Studying “patient satisfaction” is intuitively appealing as a way to understand patient experiences and help healthcare providers improve healthcare services.

There is a trend of increasing SC procedures in a number of hospitals, both in private hospitals and government hospitals, even though the clinical risk to mothers who give birth through SC surgery is greater than the risk of normal (vaginal) birth. Psychological risks cannot be avoided because the pain after a caesarean section is longer and there are risks to the baby. The risk of adverse post-SC consequences needs to be studied further from a health ethics perspective, starting from the doctor's decision-making process in carrying out SC surgery. Therefore, the aim of this research is to analyze caesarean section procedures based on the principles of health ethics.

In developing countries, CS is the last option to save the mother and fetus during critical pregnancy and/or delivery. The maternal mortality rate due to CS is 15.6% of 1,000 mothers and caesarean section is 8.7% of 1,000 live births, while early neonatal mortality is 26.8% per 1,000 live births.

Childbirth surgery assistance is an action with the aim of saving the mother and baby. The dangers of surgical delivery still threaten, so post-operative care requires attention to reduce morbidity and

mortality. The proportion of births via CS in the last decades has increased rapidly. This is a multifactorial phenomenon related to socio-economic and cultural levels. Sectio Caesarea has become such a safe procedure in many parts of the world that it is considered almost perfect. The reasons for this increase in cases are fear of pain during childbirth including pain due to uterine contractions, the ease of scheduling birth at a time that is most convenient for the family or health professionals, or because it is considered less traumatic. Other researchers found that in general the number of SCs in government hospitals is 20-25% of total deliveries, while in private hospitals the number is very high, namely around 30-80% of total deliveries (Luh et al., 2020).

METHODS

This research method is analytical using a cross sectional approach (V. Wiratna Sujarweni, 2020). The population of this study is all mothers who gave birth at the Palembang Muhammadiyah Hospital in 2023

The sample size uses the formula:

$$n = \frac{Z_{1-\alpha/2}^2 P(1 - P)N}{d^2(N - 1) + Z_{1-\alpha/2}^2 P(1 - P)}$$

Formula Description;

n = Population Size

$Z^2 - \alpha/2$ = Z value for the degree of significance

P = Proportion of a particular case to the population

N = Population size

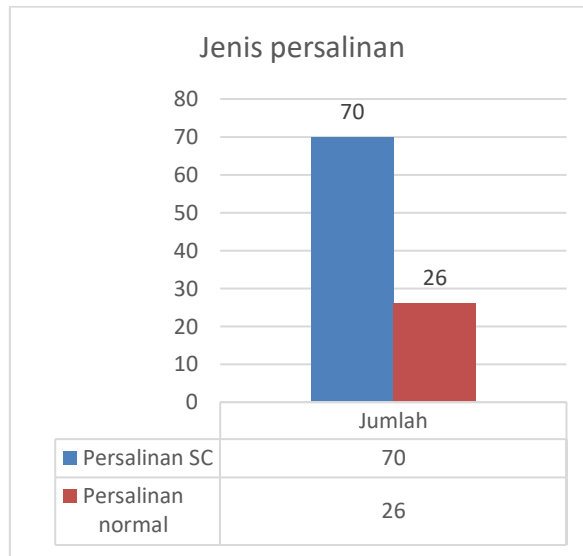
d = Degree of deviation from the population

From the calculations, 86 samples were obtained. To avoid respondents dropping out, the sample was increased by 10% to 96 samples.

The data collected in this research is primary data obtained from respondent interviews and secondary data obtained from medical records in the obstetrics room at the Muhammadiyah Hospital in Palembang in 2023. The instrument or tool used in this research is a checklist sheet.

RESULTS

Types of Childbirth in Pregnant Mothers



Graph 1. Percentage of Types of Childbirth Among Mothers

Maternal Age at Childbirth

Table 1. Percentage of Maternal Age of Mothers Giving Birth

Usia	SC				Jumlah	%	P value
	Ya	%	Tidak	%			
Berisiko (<20 Tahun dan >35 Tahun)	59	86	10	14	69	73	0,003
Tidak berisiko (20 dan 35 Tahun)	22	73	8	27	30	27	
Jumlah					96	100	

This table shows that 59 respondents who were at risk (<20 years and >35 years) underwent SC delivery (86%). The results of the Chi Square test obtained a value of $p(0.003) < \alpha(0.05)$. H_0 was

rejected, which means that there is a significant relationship between maternal age and caesarean section delivery in pregnant women.

PEB/Eclampsia in Maternity Women

Table 2. Percentage of PEB/Eclampsia in Maternity Women

PEB/ Eklamsia	SC				Jumlah	%	P value
	Ya	%	Tidak	%			
Ya	50	77	15	23	65	100	0,002
Tidak	25	81	6	19	31	100	
Jumlah					96	100	

This table shows that 50 people (77%) underwent SC delivery among respondents who experienced PEB/Eclampsia. The results of the Chi Square test obtained a value of $p(0.002) < \alpha(0.05)$.

H_0 was rejected, which means that there is a significant relationship between PEB/Eclampsia and caesarean section delivery in pregnant women.

Premature Rupture of Membranes (KPD) in Mothers in Birth

Table 3. Percentage of KPD Among Women Giving Birth

KPD	SC				Jumlah	%	P value
	Ya	%	Tidak	%			
Ya	15	75	5	25	20	27	0,024
Tidak	65	86	11	14	76	73	
Jumlah					96	100	

This table shows that 15 people (75%) underwent SC delivery among respondents who experienced PROM. The results of the Chi Square test obtained a value of $p(0.024) < \alpha(0.05)$. Ho was

rejected, which means that there is a significant relationship between PROM and caesarean section delivery in pregnant women.

Gravida Status in Maternity Mothers

Table 4. Percentage of Gravida Status in Birthing Women

Status Gravida	SC				Jml	%	P value
	Ya	%	Tidak	%			
Primi gravida (≤ 1)	20	71	8	29	28	30	0,004
Multi gravida (2-4 kali)	38	76	12	24	50	51	
Grande multi gravida (>5 anak)	12	67	6	33	18	19	
Jumlah					96	100	

This table shows that 12 people (67%) performed SC deliveries among respondents who were Grande multigravida (>5 children). The results of the Chi Square test obtained a value of $p(0.004) < \alpha(0.05)$. Ho was rejected, which means that there is a significant relationship between gravida status and caesarean section delivery in women giving birth.

DISCUSSION

Caesarean section (CS) rates have continued to increase in recent decades, especially in low- and middle-income countries. CS may be associated with lower maternal and perinatal mortality and morbidity rates when performed for medical reasons.

On the other hand, cesarean delivery without medical indications (e.g. elective and repeat CS) can cause negative health outcomes such as premature birth (gestational age 37-38 weeks). Term live births have higher neonatal morbidity, admission to the Neonatal Intensive Care Unit (NICU), respiratory complications at birth, neonatal deaths, and delayed long-term developmental outcomes compared with 39-41 weeks' gestation. In addition, premature birth

can have several economic consequences related to health, social and educational service costs.

Delivery by SC operation is the most important operation in the field of obstetrics and its incidence continues to increase throughout the world. Increasing these rates does not appear to improve overall fetal outcomes but is associated with increased morbidity and costs. Scientific advances, social and cultural changes, and, in particular, legal changes have led to fundamental changes in attitudes towards cesarean sections among patients and doctors. In fact, the consensus around the indications for cesarean section has changed greatly in many countries, now including psycho-social factors such as anxiety about childbirth, or even the mother's desire to have a cesarean section in the absence of medical indications. In recent years, a number of factors have been considered as possible influences on the increasing cesarean section rates. Changing risk profiles among aging primiparas are often cited as the reason for the increase in CS deliveries. Increased maternal requests for CS surgery also play a role. However, the rise in cesarean section rates should not be seen in isolation from changes in

society. However, this perspective ignores the fact that CS surgery is a surgical procedure with many potential complications for the mother and child (Benzouina et al., 2016).

SC surgery can be performed electively or on an emergency basis. Elective CS operations are performed according to a time schedule during pregnancy to ensure the best obstetric outcomes, while emergency caesarean sections are performed due to acute obstetric emergencies that endanger the lives of the mother and/or child.

A recent study identified that the risk of placenta previa, an unhealthy attached placenta, and obstetric hemorrhage in subsequent pregnancies is also increased in cases of repeat caesarean section.

The high rate of CS births has become a controversial public health issue due to its potential association with maternal and perinatal complications affecting index or future pregnancies. These complications include postpartum hemorrhage, blood transfusions, urological complications, postpartum infections, stillbirths, unhealthy placental attachment, peripartum hysterectomy, and other direct and indirect perinatal complications. In 2015, the World Health Organization (WHO) proposed implementing a universal CS classification system as a global standard for monitoring, evaluating, and comparing delivery rates within a health facility and/or between health facilities. The Robson classification divides pregnant women into one of mutually exclusive groups based on five obstetric characteristics: parity, gestational age, onset of labor, number of fetuses, and fetal presentation. It is worth noting that it is important to evaluate the reasons underlying the increasing CS trend given the multidimensional nature of this phenomenon (Giaxi, Gourounti, Vivilaki, Zdanis, et al., 2023).

CONCLUSION

- a) There are more types of SC deliveries than normal deliveries.
- b) There is a relationship between maternal age and caesarean section delivery in pregnant women.
- c) There is a relationship between PEB/eclampsia and caesarean section delivery in pregnant women.

d) There is a relationship between premature rupture of membranes (KPD) and caesarean section delivery in pregnant women.

e) There is a relationship between gravida status and caesarean section delivery in pregnant women.

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