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RESEARCH ARTICLE

Demographic and Obstetric Determinants of Section Cesarean in RSUP Dr. M. Djamil Padang in 2019

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Abstract

Introduction: Demographic and obstetric determinants are the dominant factors for the incidence of section cesarean, such as; age, education, occupation, parity, history of wrong delivery, and obstetric complications. This research aims to determine the determinants of demography and obstetric service section cesarean section at RSUP Dr. M. Djamil Padang in 2019. ***Method:*** This type of research is an observational descriptive research design cross-sectional. The form sample is secondary data used in the total sampling method, which comes from 420 mothers maternity. Research in analysis univariate and presented in form table frequency. ***Results:*** Research obtained that mothers give birth by section cesarean was a risky parity (59.77%), the most medically indicated was placenta previa (27.27%), and more than half (58.64%) were mothers with a history of abnormal delivery, the majority (80.90%) mothers with higher education. Most (67.73%) of mothers with a section cesarean are in the fertile period or not at risk, and more than half (55.00%) of mothers who receive sectional services cesarean section is a mother who does not work. ***Conclusion:*** Implied this research found mother section cesarean age risk, education high, no work, parity risk, and history of labor risk, with the indication of most medical incidents that is placenta previa. Suggestions are that mothers are expected to be able to know from the start what risk factors or abnormal labor are.

Keywords: Demographic Determinants, Obstetric Determinants, Section Cesarean

INTRODUCTION

Childbirth is a fundamentally natural process for the mother, in which the products of conception (fetus and placenta) are expelled after several months (37-42 weeks). There are two methods of delivery called natural births: vaginal delivery and cesarean section cesarean or cesarean.[1] Delivery by cesarean section is based on medical indications for the mother and fetus. Like; Placenta previa, abnormal position of the fetus, and other signs that could endanger the life of the mother and fetus.[2]

In 2017, an estimated 303,000 women died during pregnancy and childbirth. Nearly all maternal deaths (95%) occur in low and middle-income countries, and almost two-thirds (65%) in the African region. China, one of the countries with cesarean sections, experienced a dramatic increase from 3.4% in 2008 to 39.3% in 2018.[3] This was due to the increasing proportion of cesarean deliveries showing Premature Rupture of the Membranes (PROM) by 13.6% due to malposition fetus, severe preeclampsia (PEB) and other factors including history of cesarean delivery.[4] Previously, the ideal figure for a cesarean section was between 10-15% higher than the maximum rate for cesarean life-saving cesarean section. According

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to data from the 2018 Global Maternal and Perinatal Health Survey, 46.1% of all births were by cesarean section.[5]

Cesarean delivery has increased worldwide recently, and Indonesia is no exception. In the era of national health insurance, the number of cesarean sections continues to grow. This view began to change with the development of art in the medical field, and a cesarean section is also an option for childbirth. The study by the Obstetrics and Gynecology Research Center in Washington, DC, in 2018, showed that half of all documented C-sections are medically unnecessary.[6] Pregnant women still prefer cesarean section, although according to Bensons and Pernolls, the mortality rate for cesarean section is cesarean delivery ranges from 40 to 80 per 100.000 live births.[7]

Peel and Chamberlain reported that, in 3509 cases of cesarean delivery, the indication for cesarean delivery was 21% for disproportion pelvic, 14% for fetal distress, 11% for placenta previa, 11% for previous cesarean delivery, and 10 for malposition, and 7% reported pre-eclampsia.[8] According to the 2018 Riskesdas, cesarean delivery at the age of 10-54 years in Indonesia reached 17.6% of the total births. In addition, Indonesian women aged 10 to 54 years experienced multiple disabilities/complications reaching 23.2%, 3.1% sideways/tilted position, 2.4% bleeding, 0.2% seizures, 4.3% delayed birth, 2.9% umbilical cord, 0.7% placenta previa, 0.8% delayed placenta, 2.7% hypertension, and others 4.6%.[9] Demographic determinants include age, income, motivation, education, occupation, beliefs, and socioeconomic status. Determinants of birth include the number of births, birth spacing, gestational age, history of antenatal care (ANC), history of bad births, and obstetric complications.[10]

Studies have shown that the risk of an adverse pregnancy outcome increases with age, prolonged labor, problems at delivery, bleeding, breech birth, and cesarean delivery. Apart from being over 35 years old, the pregnant women referred to in this study also included multiple births. Mothers who give birth four times more often have a 1.86 times higher risk of obstetric complications than mothers who give birth three times more often.[11] Complications during childbirth are also related to the mother's knowledge of her care. Mothers who do not know the danger signs of labor have a 2.29 times greater chance of experiencing labor complications than mothers who do not receive information.[12]

RSUP Dr. M. Djamil Padang is one of the types of hospitals in Indonesia whose main activity is providing professional services to the public in the leading referral service for BPJS Health patients. This is one of the sub-specialty hospital services that is complete and adequate for cesarean sections, namely at RSUP Dr. M. Djamil, which is also wide as a referral from complex cases of hospitals B, C, D, etc. which cannot be handled based on absolute or relative indications. This is one of the reasons why the frequency of cesarean sections has increased in recent years.[13] The number of cesarean deliveries at RSUP Dr. M. Djamil Padang in 2015 increased from 182 people to around 205 in 2016, 209 people in 2017, 232 deliveries in 2018, and 247 deliveries in 2019. Meanwhile, the prevalence of Dr. M. Djamil Padang for sectional numbers cesarean section in 2017 was 52% and increased to 62.7% in 2018.[14]

Based on the previous problems, the research in this thesis is Demographic and Obstetric Determinants in Section Services Cesarean at RSUP Dr. M. Djamil, City of Padang, in 2019.

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METHOD

This type of research is a descriptive observational study with a cross-sectional design that objectively describes the phenomenon of the variables studied using and based on time samples, behavioral samples, and case samples at a particular time through medical records using total post-section patient sampling. The cesarean section at RSUP Dr. M. Djamil, Padang, in 2019. The location of the research study was carried out by Dr. M. Djamil Padang in December 2021-July 2022, which is to start conducting initial surveys, literature searches, data collection, and analysis, as well as the final thesis report.

RESULTS

Results from Table 1. concluded that of the 420 patients post section cesarean Parity obtained the most data, namely risk parity as many as 263 people (59.77%). Based on the history of delivery, the most data were obtained, namely mothers with a history of bad births or at risk, as many as 258 people (58.64%). Age the patient's mother post-section cesarean mother's data age no at risk as many as 298 people (67,73%). The high-education group consisted of 356 people (80.9%). Mother's job status is the most data obtained from mothers who do not work as many as 242 people (55.00%).

Table 1. Characteristics Respondents

	F	**%**
N = 420		
Parity		
1 or >5 times	263	59,77
2 - 4 times	177	40,23
Childbirth History		
Used section cesarean	258	58,64
Normal or primiparous	182	41.36
Age (in a year)		
<20 or >35	142	32,27
20-35	298	67,73
Level of education		
Graduated second degree	356	80,90
Did not pass high school	84	19,10
Work		
Work	198	45.00
No Work	242	55.00

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DISCUSSION

The results showed that the prevalence of section surgery cesarean section at the General Hospital Dr. M. Djamil Padang in 2019 based on parity most commonly found in the risk category, 263 people (59.77%). This is to a 2018 study at the Syekh Yusuf Hospital in Gowa which found that 27 out of 52 mothers who underwent cesarean section cesarean are parity mothers and high-risk mothers.[15] Another study conducted in 2018 by Dr. Chasbullah Abdulmadjid City of Bekasi found that the incidence of section surgery cesarean section is known to be higher in women who gave birth more than 63 out of 82, followed by primipara 15 people and grand multiparas four people. Primipara parties and grand multiparas have a higher risk of maternal death. This is influenced by maturity and decreased function of the reproductive organs. In general, multi-gestational parity is the safest parity for the mother and is still classified as a low-risk pregnancy. However, there are risk factors that pose a risk or hazard for complications of childbirth that can result in death or illness for the mother and child. For example, large multigravid women who have failed to conceive have delivered in previous deliveries by vacuum, blood transfusion, or retained placenta. The first birth usually has a relatively high risk for both mother and child, but decreases in the second to fourth births and increases again in the fifth and so on. Mothers with parity primipara and grand multipara usually experience complications during childbirth, such as placenta previa, placental abruption, and even bleeding due to a ruptured uterus or other reasons that have not been studied.[16]

Based on the results of the study obtained data on the incidence of operations caesar or section cesarean section at RSUP Dr. M. Djamil, Padang in 2019 based on history of operations caesar Previously, the highest number was the category of mothers with a history of abnormal/risky births, namely 258 people (58.64%). A history of abnormal births can lead to unfavorable endometrial conditions in the mother, which causes malformations in the arteries and veins and damage to the uterine wall.[17] This research is appropriate and in line with previous research journals conducted at Home Fatimah Serang Hospital in 2018 which stated that 79.4% of mothers had a section cesarean and had a history of cesarean section. Other research at the M. Yunus Hospital, Bengkulu in 2019 stated that 51.4% of women delivered by surgery cesarean had a history of surgery cesarean section in previous labors.[18] Combination history of birth and surgery caesar conventional led to the formation of a network scar uterus. Used wound caesar changed during pregnancy next because the scars in the surrounding area thinned out, after which the scars widened due to stretching. As a result, the lower uterine segment area (SBR) becomes thinner in pregnancies with previous cesarean sections. These changes form the basis for complications such as rupture uteri, placenta previa, placenta accrete, and placental abruption. However, this does not rule out the possibility of vaginal delivery for women who have previously had a cesarean section.[19]

Based on research results determinant demographics age, it was found that case section Most cesareans were found in the low-risk age group, namely 20 to 35 years of age, 298 people (67.73%), and high-risk age groups 142 people (32,27%). The incidence of a cesarean section may increase due to poor endometrial conditions, including maternal age over 35 years, which is caused by the gradual destruction of the endometrium due to endometrial vascular sclerosis, where blood flows into the endometrium. Uneven and can cause antepartum hemorrhage (HAP), mostly in pregnant women of childbearing age.[20] Studies in line with Dr. Adjidarmo Rangkasbitung Lebak Banten Hospital in 2017, namely Mother age risk low more Lots do operation cesarean section (62.2%) compared with mother age risk high (37.8%).[21]

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This is different form results carried out at the Sahidya Hospital Camatha Study Batam City in 2019 out of 135 mothers, 23 mothers aged over 35 years and 112 mothers aged between 20 to 35 years. A total of 4 mothers (17.4%) of 23 mothers over 35 years do operation cesarean section, and 19 mothers (82.6%) of 23 mothers over 35 years no do operation cesarean. Also found from 112 mothers aged 20-35 years, two mothers (1.8%) did an operation cesarean section, and 110 mothers (98.2%) did not do a cesarean section.[22]

From the results of the study, it is known that the educational level of mothers who underwent cesarean section at RSUP Dr. M. Djamil Padang in 2019 was the highest at 61.7%. The level of education is one of the factors that influence knowledge. This shows that the higher the level of education, the higher the expertise. Most human information is received through sight and hearing. Other things that affect knowledge besides the level of education are experience, knowledge, social/cultural, and economic aspects.[23] The higher the level of education, the easier it is to know more and be motivated to keep learning new things, also in terms of one's health. Conversely, with low education, it is difficult to accept new information and values. Mothers with less knowledge about high-risk pregnancies are one of the factors that cause high-risk deliveries.[24]

Work is something that everyone needs. Occupation is linked to education and income and plays an important role in socioeconomic and other factors such as health. The work environment can cause a person to gain experience and knowledge either directly or indirectly. Based on research on maternal occupation conducted in 2019 by Dr. M. Djamil Padang performed cesarean section for most of the housewives (not working), namely 55.00%.[25]

CONCLUSION

Research conducted with the title "Demographic and Obstetric Determinants of Section Cesarean in RSUP M. Jamil, Padang period 1 January 2019 - 31 December 2019" can be drawn and concluded that: Based on the determinant of demographics, groups the most found with age no risk, education high, and no work or mother house stairs. Based on determinants of obstetrics, parity the most is group risk, history labor at risk, and medical indications for which the dominant cause of surgery caesar is an indication of placenta previa.

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