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The Relationship between Sc Delivery with the Eracs Method and Asphyxia in Newborn Babies at Bunda Pengharapan Hospital, Merauke, South Papua

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ABSTRACT

The SC ERACS method is a safer Caesarean delivery method with a faster recovery process than the Caesarean delivery process in general. SC ERACS allows the patient to move the body more quickly. That is, about two hours after a Caesarean section with minimal pain. This study aims to determine the relationship between ERACS SC method delivery and the incidence of asphyxia in newborns in the working area of Bunda Pengharapan Hospital Merauke, South Papua. This research uses a research design *Quantitative*. The research method uses correlative descriptive with approach cross sectional. With technique sampling purposive A sample of 30 respondents was obtained, the independent variable (SC delivery ERACS method) and the dependent variable (Incidence of Asphyxia in newborns) using questionnaires and medical records. Statistical tests are used Chi-Square to find out the relationship between the two variables. The research results from 30 respondents almost all chose SC ERACS surgery, namely (80%), the majority of which were 24 respondents, with the incidence rate of newborn asphyxia being 17 babies, namely (56.7%) and there were 13 babies who did not experience asphyxia based on the results of the Chi statistical test. -Sguare where there is a significant correlation between birth by sc eracs method and the incidence of asphyxia in newborn babies. Analysis using the Chi-Square statistical test shows that the significance value is equal to 0.046 for the incidence of asphyxia and 0.001 for the type of operation with an error rate of 5%, meaning the p.value is smaller than 0.5, which means there is a relationship between the incidence of asphyxia and the type of SC ERACS. for Bunda Pengharapan Hospital SPO SC ERACS revised and socialized the latest SPO, paying attention to the competency of the staff who will be given the task of receiving babies born SC both SC ERACS and non ERACS, ensuring that the baby receiving team is complete (SP.A Doctor, PERINATAL nurse/Midwife) in order to reduce incidence of asphyxia in newborns.

Keywords: Newborns, Asphyxia Events, ERACS SC Method Delivery

INTRODUCTION

Labor Caesarean section With the ERACS Method (Enhanced Recovery after Caesarean Section) or SC ERACS (Enhanced Recovery After Caesarian Surgery) is a rapid recovery program after a Caesarean section which consists of a series of care starting from preoperative preparation, intraoperative and post-operative care until the patient is discharged. ERACS surgical delivery is a method of surgical delivery to give birth to a child through an incision in the abdominal wall and uterus. This process is safer and faster than the cesarean delivery process in general. The Caesarean Section or SC ERACS operation allows patients to

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move their bodies more quickly, namely, around two hours after caesarean section with minimal pain.

The SC ERACS surgical approach involves team collaboration consisting of: a team of obstetricians, anesthesiologists, pediatricians, midwives and nurses, nutritionists, all of whom collaborate very well in carrying out this method using the latest techniques and recovery runs as smoothly as possible. Even though we have multi-disciplinary knowledge in this treatment, there will definitely be a level of error, so there is the safest collaboration and communication in handling the mother and baby so that maximum results are superior compared to ordinary SC. The ERACS operation apparently also has a number of shortcomings. One of them is that it requires relatively higher costs compared to surgery *Caesarean Section* normal. This is because ERACS operations require more expensive equipment. But on the other hand, the hospitalization is shorter and with a very fast recovery for mother and baby.

Currently the ERACS SC delivery method is being widely discussed on social media throughout the country. This makes mothers who are currently pregnant also want to give birth using this method, especially as the mother's better quality of life after giving birth will be a benefit that can be considered. Apart from that, ERACS is often said to have side effects such as excessive itching after giving birth. This condition is actually rare and only occurs if the mother has an allergy to certain drugs. In addition, before the procedure the doctor will first carry out several tests to ensure whether the patient meets the requirements for ERACS surgery, such as the mother's hemoglobin level is one thing that must be paid attention.

Worldwide caesarean section rates have increased from approximately 7% in 1990 to 21% in 2021 and are projected to continue increasing over this decade. As many as 18.5 million caesarean section procedures are performed worldwide every year. There are around 20% of pregnant women in the world giving birth via caesarean section (Tika et al., 2022). According to *Indonesian Demographic and Health Survey* in 2017, shows that the incidence of births by SC is 17% of the total number of births in health facilities. This proves that there is an increasing increase in deliveries with SC, with indications of premature rupture of membrane (PROM) amounting to 13.6% caused by other factors including abnormalities in the position of the fetus, PEB, and a history of SC (Ministry of Health, 2018).

The infant mortality rate in Indonesia (Ministry of Health of the Republic of Indonesia 2022) Reporting from UNICEF, it is recorded that it has decreased to more than half the previous number from 1990 to 2017. In Indonesia alone, it is known that the number of newborn deaths has reached around 56,000 babies. According to a report by the Central Statistics Agency (BPS), Indonesia has an infant mortality rate of 16.85 per 1,000 live births in 2022. This means that for every 1,000 babies born safely, around 16 babies die before reaching 1 year. Papua is the province with the highest infant mortality rate, namely 38.17 per 1,000 live births in 2022. Meanwhile, the lowest rate is in Jakarta, namely 10.38 per 1,000 live births. "The infant mortality rate is used to reflect the state of health in a society," said Central Statistics Agency (BPS) on its official website.

Apart from there being disparities between provinces, there are also high disparities in infant mortality rates at the district/city level. BPS recorded that the lowest district/city infant mortality rate was in the city of Central Jakarta, namely 9.18 per 1,000 live births. Meanwhile, the highest figure was in Nduga district, namely 56.69 per 1,000 live births. According to the Ministry of Health, the main causes of infant death include respiratory problems, premature birth, blood infections (neonatal sepsis), and birth defects (congenital malformations).

Asphyxia in babies born by Caesarean section (*caesarean section*) can be caused by several factors. One common cause is a decrease in oxygen supply during or after surgery. This can happen because the baby does not get enough blood flow and oxygen during the cutting of the umbilical cord or because of problems in handling breathing while the baby is still in the operating room. In addition, babies born by caesarean section may have a higher risk of

experiencing asphyxia if there are complications such as impaired placental circulation or premature birth. Excessive presence of amniotic fluid in the baby's lungs after birth (*meconium aspiration syndrome*) can also cause breathing difficulties and potential asphyxia. It is important for the medical team performing a caesarean section to ensure that the baby's breathing and oxygenation are carried out carefully and quickly after birth to reduce the risk of asphyxia.

As for the impact or shortcomings of the method of giving birth *suction cesarean* In general and with the SC ERACS method, recovery takes longer compared to normal delivery, there is a risk of infection, and the baby's immunity is lower than babies born normally (Siloam Hospital medical team 2023). Based on the performance results recorded in the register book of the perinatology room at Bunda Pengharapan Hospital (RSBP) in 2021 there were 25 babies with asphyxia, in 2022 there were 39 babies who experienced asphyxia and in 2023 from January – October there were 53 babies who experienced asphyxia.

From a preliminary study of 10 babies born using the Sectio Secarea delivery method, it is known that 3 babies experienced severe asphyxia, 4 babies experienced mild asphyxia and 3 of them did not experience severe, moderate or mild asphyxia based on Apgar score assessment.

The results of a preliminary survey conducted on 10 babies born using the Sectio Secarea delivery method revealed that 3 babies experienced severe asphyxia, 4 babies experienced mild asphyxia and 3 of them did not experience severe, moderate or mild asphyxia based on the Apgar score assessment.

Efforts that can be taken are: make sure the Infamwarmer is turned on 10 minutes before the baby is born, be extra in keeping the baby warm, babies born with SC must be received by a doctor. SPA or attending doctor and midwife/senior nurse who is trained and competent, carry out internal training regarding Resuscitation management for initial treatment of BBL, coordinating and controlling the Hospital PONEK team together with the OK Team if there is an ERACS or non-ERACS sectio secarea operation scheduled.

Based on the description above, the researcher is interested and wants to research further with the title The Relationship between SC Delivery with the Eracs Method and the Occurrence of Asphyxia in Newborn Babies at Bunda Pengharapan Hospital in Merauke, Papua-South Province.

METHOD

Research methods are the main method used by researchers to achieve goals and determine answers to the problems posed (Arikunto, 2019). This section will describe the methods used in the research, including research design, framework, population, samples and sampling, research variables, operational definitions, location and time of research, data collection techniques, data analysis, and research ethics. This research uses a research design *correlative descriptive* regarding the relationship between SC ERACS delivery and the incidence of newborn asphyxia. This research uses an approach *cross sectional* namely research that studies risk factors and effects, by approaching, observing or collecting data at the same time

RESULTS

General data

1. Maternal Age Tabulation Table

Table 4.1 Description of labor based on maternal age

The characteristics of respondents based on age are divided into 3 groups, namely age < 20 years, age 20-35 years and age > 35 years, which can be seen in the following table:

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| No | Mother's age | amount | Percentage |
|-------|--------------|--------|------------|
| 1 | 20-25 years | 4 | 13.3% |
| 2 | 25-35 tahun | 21 | 70.0% |
| 3 | > 35 years | 5 | 16.7% |
| total | • | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.1 above, it was found that the majority of respondents aged 25-35 years chose SC delivery using the ERACS method, 21 respondents (70.0%)

2. Mother's Education Tabulation Table

Table 4.2 Description of childbirth based on maternal education

The last educational characteristic explains the last education the respondent has taken. The results of a review of respondents' characteristics based on their latest education are as follows:

| Number | Education | Amount | Percentage |
|--------|------------------------|--------|------------|
| 1 | No school/Not finished | 1 | 3,3% |
| 2 | ELEMENTARY SCHOOL | 1 | 3, 3% |
| 3 | JUNIOR HIGH SCHOOL | 1 | 3, 3% |
| 4 | SENIOR HIGH SCHOOL | 14 | 46,7% |
| 5 | UNIVERSITY | 13 | 43,4% |
| Total | | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.2 above, it was found that almost half had a SMA/SMK education, 14 respondents (46.67%).

3. Tabulation Table of Mother's Occupation

Table 4.3: Description of labor based on respondent's job explains the job that the respondent has as follows:

| Number | Work | amount | Percentage(%) |
|--------|------------------------|--------|---------------|
| 1 | No school/Not finished | | |
| 2 | housewife | 8 | 26,7 |
| 3 | Farmer | 0 | 0 |
| 4 | Private | 17 | 56,7 |
| 5 | civil servants | 5 | 16,6 |
| Total | | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.3 above, it is found that the majority of private sector workers are 17 respondents (56.7).

C. Special Data for Independent and Dependent Variables

1. Tabulation Table for SC Method Delivery

Table 4.4 Description of labor based on type of labor

The characteristics of the type of operation explain the delivery method chosen by the respondent.

The results of a review of respondent characteristics based on SC type are as follows:

| Number | Variab | le | Amount | Percentage (%) |
|--------|--------|-----|--------|----------------|
| 1 | SC ER. | ACS | 24 | 80,0 |
| 2 | SC | Non | 6 | 20,0 |
| E | RACS | | | |
| Total | | | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.4 above, it was found that almost all respondents chose SC delivery using the ERACS method, with 24 respondents (80.0%).

2. Tabulation Table of Asphyxia Incidents

Table 4.5 describes the incidence of asphyxia

Characteristics of asphyxia incidents explain newborn babies who experience asphyxia, born to respondents. The results of a review of respondent characteristics based on asphyxia incidents are as follows:

| Number | Variable | amount | Percentage (%) |
|--------|--------------|--------|----------------|
| 1 | Asphyxia | 17 | 56,7 |
| 2 | Not Asphyxia | 13 | 43,3 |
| Total | | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.5 above, it was found that the majority of babies experienced asphyxia, namely 17 babies (56.7%).

D. Cross Tabulation of General Data and Special Data.

1. Cross-tabulation table of maternal age and cases of asphyxia

Table 4.6 An overview of the cross tabulation between general data and specific data regarding the incidence of asphyxia with respondents of maternal age can be seen as follows:

| No | Age mother | Case No asphyxia | | | ia | Amount | percentage |
|-------|--------------------|------------------|------------|----------------|------------|--------|------------|
| | | Asphyxia | presentase | No asphyxia | presentase | | |
| 1 | 20-35 years | 2 | 6,7 | 2 | 6,6 | 4 | 13.3 |
| 2 | 25-35 years old | 11 | 36,7 | 10 | 33,3 | 21 | 70,0 |
| 3 | > 3: year | 5 4 | 13,3 | 1 | 3,4 | 5 | 16.7 |
| Total | , | 17 | 56,7% | 13 | 43,3% | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.5 above, it was found that almost the majority of respondents aged 25-35 years old experienced asphyxia, namely 11 babies (36.7%).

2. Tabulation Table Between Maternal Age and Delivery Method sc

Table 4.6 describes respondents who chose the ERACS SC delivery method. The reviews are as follows:

| Age mother | SC metode | e ERACS | SC Non E | CRACS | Amount | Percentage |
|---------------|-----------|------------|----------|------------|--------|------------|
| | Amount | presentase | amount | presentase | _ | |

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| Total | | 24 | 80% | 6 | 20% | 30 | 100% |
|-------|--------------|----|------|---|------|----|------|
| 3 | > 35 year | 4 | 13,4 | 1 | 3,4 | 5 | 16.7 |
| 2 | 20-35 years | 16 | 53,3 | 5 | 16,6 | 21 | 70 |
| 1 | 20-35 years | 4 | 13,3 | 0 | 0 | 4 | 13,3 |

(Source: Frederika's data research November-December 2023)

Based on table 4.6 above, it was found that almost more than half of the respondents aged 25-35 years chose to give birth via the ERACS method, 16 respondents (53.3%).

3. Tabulation table of maternal education and asphyxia cases

Table 4.7 Description of respondents' maternal education and asphyxia cases is as follows:

| No | Mother's education | Asphyx | ia | No asphyxia | | Amount | Presentase |
|-------|--------------------|------------|------------|-------------|------------|--------|------------|
| | | Total h | Percentage | Amount | presentase | _ | |
| 1 | No school | 1 | 3,3 | 0 | 0 | 1 | 3.3 |
| 2 | Elementary School | 0 | 0 | 1 | 3,3 | 1 | 3.3 |
| 3 | JUNIOR HIGH SCHOOL | 1 | 3,3 | 0 | 0 | 1 | 3.3 |
| 4 | Senior high school | 6 | 20 | 8 | 26,6 | 14 | 46.7 |
| 5 | university | 9 | 30 | 4 | 13,3 | 13 | 43.4 |
| Total | | 17 | 56,7% | 13 | 43,3% | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.7 above, it was found that half of the respondents with a university's education were born experiencing asphyxia, 9 babies (30%).

4. Cross Tabulation Table of Maternal Education by Delivery Method SC Table 4.8 Description of respondents' maternal education and delivery methods chosen by respondents, the review is as follows:

| No | Education | SC meto | de ERACS | SC Non ERACS | | Amount | percentage |
|-------|-----------------------|---------|----------|--------------|----------|--------|------------|
| | | Total | Presents | total h | Presents | | |
| 1 | no school | 1 | 3,3 | 0 | 0 | 1 | 3.3 |
| 2 | Elementary school | 1 | 3,3 | 0 | 0 | 1 | 3.3 |
| 3 | JUNIOR HIGH SCHOOL | 1 | 3,3 | 0 | 0 | 1 | 3.3 |
| 4 | Senior high school | 9 | 30 | 5 | 16,6 | 14 | 46.7 |
| 5 | Diploma/Bachelor | 12 | 40 | 1 | 3 | 13 | 43.4 |
| Total | | 24 | 80% | 6 | 20% | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Based on table 4.8 above, it was found that almost half of those with a Diploma/Bachelor's degree chose to give birth via the ERACS method as many as 12 respondents, namely (40%).

5. Cross Tabulation Table between Mother's Occupation and Asphyxia Cases
Table 4.9 Description of respondents based on employment with asphyxia cases, the
review is as follows:

| | Mother's job | Asphyxia | | Not Asphyxia | | | | |
|-------|----------------|----------|-------------|--------------|---------|--------|-----------|--|
| | | Amount | Persentasse | Amount | Present | Amount | Perentage | |
| 1 | Housewife | 4 | 13,3 | 4 | 13,3 | 8 | 26,7 | |
| 2 | Farmer | 0 | 0 | 0 | 0 | 0 | 0 | |
| 3 | Private | 9 | 30 | 8 | 26,7 | 17 | 56,7 | |
| 4 | civil servants | 4 | 13,3 | 1 | 3,3 | 5 | 16,6 | |
| Total | | 17 | 56,7% | 13 | 43,3% | 30 | 100% | |

(Source: Frederika's data research November-December 2023)

Based on table 4.9 above, it is found that almost all private workers with newborns experienced asphyxia, as many as 9 babies (30%).

6. Cross Tabulation Table between Maternal Occupation and Delivery Method sc Table 4.10 describes respondents based on Occupation and asphyxia cases, the review is as follows:

| No Mother's job | SC metode ERACS | | SC Non E | SC Non ERACS | | Percentage | |
|-----------------|-----------------|---------|----------|--------------|------|------------|------|
| | Amount | Present | Amount | presentase | | | |
| 1 | IRT | 7 | 23,3 | 1 | 3,3 | 8 | 26,6 |
| 2 | This | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Private | 12 | 40 | 5 | 16,7 | 17 | 56,7 |
| 4 | civil servants | 5 | 16,7 | 0 | 0 | 5 | 16,7 |
| Total | | 24 | 80% | 6 | 20% | 30 | 100% |

(Source: data FrederikaNovember-December 2023)

Based on table 4.10 above, it was found that half of private workers chose to give birth using the ERACS method, 12 respondents (40%).

- E. Cross Tabulation Between Variables
- 1. Cross Tabulation Table between SC operation methods and Asphyxis Cases
 Table 4.11 illustrates the tabulation of cross-sectional data between the SC delivery
 method and the incidence of asphyxia in newborns as depicted in the following table:

| No | M method I operated SC | Asphyxia case | | No asphyxia | | Amount | Percentage |
|-------|------------------------------|---------------|------------|-------------|---------|--------|------------|
| | • | Amount | Presentase | amount | Present | | |
| 1 | SC Eracs | 17 | 56,7 | 7 | 23,4 | 24 | 80 |
| 2 | SC Non Eracs | 1 | 3,3 | 5 | 16,6 | 6 | 20 |
| Total | | 18 | 60 | 12 | 40 | 30 | 100% |

(Source: Frederika's data research November-December 2023)

Table 4.11 above shows that almost the majority of respondents who chose the SC ERACS delivery method were 24 respondents (80%) and almost more than half of the 17 babies (94.5%) who were born using the ERACS SC delivery experienced asphyxia.

F. Statistical test results

Table 4.12 Description of statistical results. Results of analysis using the chi-square SC delivery ERACS method with the incidence of newborn asphyxia at Bunda Harapan Hospital.

| | Test Statistics | | | | |
|------------|--------------------|---------------------|-----------|--|--|
| | ASPHYXIA INCIDENT | ERACS TYPES | OPERATION | | |
| Chi-Square | 0.533 ^a | 10.800 ^a | | | |
| Value Sig | 0.046 | 0.0 | 001 | | |

(Source: Frederika's data research November-December 2023)

Based on table 4.12 above, it shows that the significance value is equal to 0.046 for the incidence of asphyxia and 0.001 for the type of operation with an error level of 5%, meaning that the value

P value is smaller than 0.5 so the researcher can conclude that based on bivariate analysis there is a relationship between the incidence of asphyxia and the type of SC ERACS, so H0 is rejected and H1 is accepted, which means there is a relationship between SC ERACS delivery and the incidence of newborn asphyxia.

DISCUSSION

Delivery SC ERACS Method

From general data based on table 4.1, it is known that of the 30 respondents, the majority of respondents, namely 21 respondents aged 25-35 years, were of productive age, namely (70%), respondents based on education obtained from table 4.2, almost half had high school/vocational education as many as 14 respondents (46.7 %), Based on table 4.3 above, it was found that the majority of private sector workers were 17 respondents (56.7%). From the cross tabulation results of table 4.6 between maternal age and delivery method, almost half of the respondents aged 25-35 chose SC ERACS, 16 respondents (53.3%), from table 4.8 between education and the ERACS method, it was found that almost half of those with diploma/graduate education chose SC ERRACS delivery method 12 respondents (40%), from the cross tabulation of work using the SC ERRACS method, table 4.10 found 12 respondents (40%), and based on table 4.11, the cross between variables found that almost the majority of respondents chose SC ERRACS delivery, 24 respondents (80%). In general, they have certain reasons or considerations on the part of the respondent and the DPJP, such as certain risks, with several considerations of complications in pregnancy, they make these decisions based on the situation and needs, such as respondents based on multi-gravida parity, in general these respondents choose the SC ERACS method because some respondents do it. MOW family planning method, there is also a reason for fear of pain associated with natural childbirth, another reason respondents have good health insurance for financial responsibility and access to affordable health services. Respondents who have higher education and an established level of employment tend to have wider opportunities and better career opportunities. Meanwhile, previous researcher Nayarani studied Humaira (2022) with the title Differences in length of stay and early mobilization between ERACS method Sectio Caesare operation patients and Non Sectio Caesare operation patients.

Eracs at RSIA Puti Bungsu Central Lampung

Based on the results of cross tabulation between the general data of respondents and the SC ERACS delivery method, they are as follows. From the results of the research tabulation, it is known that respondents aged 20-35 years mostly chose to carry out childbirth using the Erasc SC method, 16 respondents (53.33%) out of a total of 24 respondents using the Eracs method. Of all the respondents gave the reason that the ERACS method is one method that reduces excessive pain like normal vaginal delivery, most of the respondents are also career

women so they don't want to spend too long in hospital care, most of the respondents are also highly educated so they have a lot of information what they got about the SC eracs delivery method.

Based on the researcher's observations, if someone with good education, younger people knows all the good information, and if someone has a good job, eating will also contribute to guaranteeing a good life, then that person will definitely receive various positive information for themselves and others and improve the quality of life and Expanding understanding so that the method chosen can have a positive impact, therefore, information is needed by health workers when preparing informed consent. Prepare maternal psychology with correct and accurate information. The SC ERRACS method can help mothers return to daily activities more quickly and care for their babies more effectively, thereby improving the quality of life. The SC ERRACS method helps speed up the mother's recovery process after SC surgery by reducing hospitalization time and speeding up the return of body organ function during the recovery process. SC ERRACS also reduces the risk of complications by focusing on more effective pain management, speeding recovery and reducing risks.

Incidence of Newborn Asphyxia.

From the research results, it was found that 17 babies experienced asphyxia based on the Apparsor assessment (56.7%) of the babies experienced asphyxia. Based on table 4.6, the tabulation between maternal age and the incidence of asphyxia shows that almost the majority of respondents aged 25-35 years experienced asphyxia, 11 babies (36.7%), based on table 4.7, it was found that half of the respondents with diploma/graduate degrees who were born experienced asphyxia, 9 babies. (30%), based on table 4.9, it was found that almost all private baby workers experienced asphyxia, 9 babies (30%), Similar research; (Hani Pumammi 2022) with the title factors causing asphyxia in newborns, research method using the review method, the results of research into the causes of asphyxia in newborn babies are sectional birth, meconium, LBW mother's age, prolonged labor, premature rupture of membranes, breech placement. The difference with current researchers is the research method, research location, research time and current researchers looking at the aspect of asphyxia incidents. Similar research According to (Yuanita Syaiful 2022) Factors related to the incidence of Neonatal asphyxia at Muhamadiyah Gresik Hospital. This is in line with previous researchers *Neonatal* asphyxia is the failure to breathe spontaneously and regularly immediately after birth or the failure to initiate and continue breathing in a newborn. In this research, researchers examined the relationship between delivery using the SC ERRACS method and the incidence of asphyxia in newborn babies. Based on the research results, there is a relationship between birth using the SC ERRACS method and the incidence of asphyxia in newborn babies. This is in line with previous researchers (Fadhilah Fanny 2018) which can be caused by several factors, one of which is one of the factors causing asphyxia is delivery by Caesarean section (caesarean section). Asphyxia is one of the main causes of neonatal death in the first 24 hours of life. Anesthesia on caesarean section can affect blood flow by changing perfusion pressure or vascular resistance either directly or indirectly which can cause asphyxia. Apart from that, there is no chest compression as in vaginal birth of babies born with caesarean section babies contain more fluid and less air in their lungs during the first six hours after birth.

One common cause is a decrease in oxygen supply during or after surgery. This can happen because the baby does not get enough blood flow and oxygen during the cutting of the umbilical cord or because of problems in handling breathing while the baby is still in the operating room. In addition, babies born by caesarean section may have a higher risk of experiencing asphyxia if there are complications such as impaired placental circulation or premature birth. Excessive presence of amniotic fluid in the baby's lungs after birth (*meconium aspiration syndrome*) can also cause breathing difficulties and potential asphyxia.

Based on the results of cross tabulation of data in table 4.5, it can be seen that of the 30 respondents, the majority were aged 25-35 years and in this group of respondents there were 21 respondents, namely (70%) who chose the SC ERRACS operation method and in this age group, there were babies who experienced asphyxia was 11 babies (36.66%) of the total asphyxia, namely 17 babies (56.66%) while 13 babies (43.33%) did not experience mild, moderate or severe asphyxia based on the APGAR Score assessment. Asphyxia occurs in newborns when the baby has difficulty breathing. This can be a serious condition and requires immediate treatment. So the officer who receives the baby first prepares care equipment and warm clothes, apart from that the officer also prepares the environment in a warm condition (turning on the infamy warmer, adjusting the room temperature, heating the baby's swaddling clothes under the infamy warmer lamp) and if the baby experiences asphyxia after birth using the SC method ERACS and non-ERACS medical teams immediately take action to help the baby breathe and keep the baby warm, as well as providing additional care as needed. The author's opinion is that the problem/case of asphyxia is a very serious problem because it is related to the respiratory system which is caused by low oxygen levels in the body and problems with the respiratory system which will be fatal if not treated immediately. For this reason, nurses/midwives assigned to receive babies must recognize and detect early signs of early asphyxia in babies, namely by assessing the initial Apgar score. The results of this research can help medical professionals improve the care and interventions provided to newborns who are at risk of experiencing asphyxia. It is hoped that the results of this research will allow nurses/midwives to provide health education regarding the importance of understanding the incidence of asphyxia in newborns in general and specifically during SC deliveries using the ERACS method to the medical team at Bunda Pengharapan Hospital Mmerauke, South Papua.

Relationship between ERACS SC method delivery and the incidence of asphyxia.

There are several factors that can cause asphyxia, including maternal factors, umbilical cord factors, baby factors, and surgical birth factors, namely vaginal birth. *Caesarean Section*. Some cases of asphyxia in newborn babies are a continuation of intrauterine asphyxia. However, complications can arise at any time due to this labor process. Anesthesia on *caesarean section* can affect blood flow by changing perfusion pressure or vascular resistance either directly or indirectly which can cause asphyxia, including complications from anesthesia, pressure on the umbilical cord, disruption of oxygen flow during surgery, negative reactions to drugs given to the mother, in addition to the absence of chest compressions. such as in vaginal birth of babies born with *caesarean section* babies contain more fluid and less air in their lungs during the first six hours after birth (Fadhilah Fanny 2018).

This SC ERRACS concept has been proven to reduce patient length of stay in hospital, reduce postoperative complications, and increase patient satisfaction. From this research it can be concluded that asphyxia of newborns is still prevalent in the hospital environment, therefore, awareness of the factors that cause newborn asphyxia among maternity health workers, careful monitoring of births, the need for better maternal care and identification and taking appropriate action. Which can help reduce the occurrence of newborn asphyxia. Controlling risk factors, especially health workers' understanding of risk factors, which is supported by evidence or evidence from various kinds of literature, is very important in efforts to prevent the occurrence of neonatal asphyxia, especially training in handling BBL care. Analysis of the relationship between the SC ERACS method of delivery and the incidence of asphyxia in newborn babies at Bunda Pengharapan Hospital. The results of research analysis of the relationship between the SC ERACS method of delivery and the incidence of asphyxia based on statistical tests using the Chi-Square test resulted in P = 0.000 < 0.05 then H0 is rejected and H1 is accepted, which means there is a relationship between SC delivery using the ERACS method and the incidence of asphyxia in newborns at Bunda Pengharapan Hospital

Merauke, South Papua. At Bunda Pengharapan Hospital, although the incidence of asphyxia in newborns with Eracs and non-Eracs caesarean sections is still relatively high, this can be a serious problem for babies if not treated properly. It is hoped that the hospital will have a team that is responsive and precise in handling emergencies in newborn babies to prevent complications in asphyxiated babies. There are so many dangers that can threaten the safety of the life of the mother and fetus due to childbirth *caesarean section* The role of health workers is very significant in improving the behavior of mothers to regularly check the health condition of the mother and fetus during pregnancy, repeated counseling to pregnant women about the benefits of ANC can play a role in forming awareness which is manifested in mothers' actions to regularly check their pregnancies as an effort. Early detection of factors that can cause asphyxia because knowledge is an important domain for shaping a person's behavior.

According to researchers the relationship between *caesarean section* the asphyxia incident at Bunda Pengharapan Hospital Merauke, South Papua for the period November-December 2023 is very closely related. If we look at the research results, the incidence of asphyxia in newborn babies is still quite high, where the incidence of asphyxia can be caused by various factors, one of which is the factor of birth by action, namely by *elective caesarean section or eracs*.

The conclusion of this study is that every baby born with Section Caesarea have a higher risk of experiencing asphyxia than normal childbirth, this is due to physiological changes due to the birth process.

CONCLUSION

- 1. ERACS Method of SC Delivery at Bunda Pengharapan Hospital, Merauke, South Papua, almost all 24 respondents, namely (80%) respondents chose to carry out the ERACS Method of delivery.
- **2.** Case of asphyxia in Newborn baby at Bunda Pengharapan Hospital, Merauke, South Papua, Most of the babies experienced asphyxia, namely 17 babies (56.7%) of the 24 respondents who were born using the SC ERACS method
- 3. Based on statistical tests, it shows that the significance value is equal to 0.046 for asphyxia incidents and 0.001 for the type of operation with an error level of 5%, meaning that the p.value is smaller than 0.5, which means there is a relationship between asphyxia incidents and the type of SC ERACS.

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