

## Analysis of The Selection of Vaginal Birth After Cesarean (VBAC) Delivery Methods in the Cengkareng Area of West Jakarta

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### Abstract:

The increase in the number of deliveries by CS causes an increase in the number of women with a history of CS for a second pregnancy and becomes a problem for subsequent types of birth. An effort to reduce the incidence of CS delivery is with Vaginal Birth After Cesarean (VBAC). Vaginal birth After Cesarean (VBAC) is a vaginal birth after a cesarean section (Cunningham, 2013). Mothers who are afraid of undergoing a normal birth process are caused by many factors, one of which is the problem of lack of information provided and support from both health workers and family regarding the choice of VBAC method. This study aimed to determine the relationship between maternal knowledge, family support, and health worker support on the choice of VBAC method at TPMB West Jakarta City in 2024. The method used in this research is observational analytics with a Cross-Sectional Study design. The sample in this study was pregnant women in the second and third trimesters with a history of 1 time non-absolutely indicated CS (such as CPD, uterine rupture). In this research, the instrument used was a questionnaire sheet. The analysis used Chi Square. There is a relationship between knowledge and the choice of delivery method, Vaginal Birth After Caesar (VBAC), the value is ( $p=0.000$ ), there is a significant relationship between family support and the choice of delivery method, Vaginal Birth After Caesar (VBAC), the value is ( $p=0.000$ ) and there was a significant relationship between support from health workers and the choice of delivery method. Vaginal Birth After Caesar (VBAC) was obtained ( $p=0.000$ ).

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## INTRODUCTION

Normal delivery is the process of expelling the products of conception (fetus and urine), which are at term and can survive outside the uterus through the vagina spontaneously (Sari et al., 2022; Rahmawati et al., 2021). There are two methods of delivery, namely vaginal delivery, which is better known as natural (normal) delivery, and cesarean delivery or section cesarean (SC) (Amiq & Emelia, 2021). The increase in the number of deliveries by CS causes an increase in the number of women with a history of CS for a second pregnancy and becomes a problem for subsequent types of births. For most women, giving birth naturally after undergoing previous CS surgery (VBAC) is a safe option (Rahma, 2023; Azka et al., 2023).

It should be noted that delivery by cesarean section still carries risks for the mother and baby, starting from the risk of anesthesia, bleeding, and the baby having difficulty breathing. Women aged  $\geq 40$  who undergo cesarean delivery are more likely to experience complications than women  $< 40$  years. These problems include a 75% increase in intraoperative transfusions, a 38% increase in postpartum transfusions, a threefold increase in intestinal injuries, a 92% increase in

abnormal placentation, a 59% increase in classic incisions, and a twofold increase in cesarean hysterectomies and intensive care mother (Poldiak, 2020)

Cesarean section is the last way to help the baby's birth process, which is only done if there are obstacles in the normal birth process. Obstacles in normal delivery can be persistent or non-persistent. Obstacles can include pelvic deformities, latitude presentation, incompatibility of the child's head with the mother's pelvis due to a large fetus, the placenta covering the birth canal (placenta previa), placental abruption, and many other indications that can be social indications (patient requests) or could be due to anxiety. service provider (provider) regarding the condition of the fetus if left longer in the womb, for example, the fetal heart rate is monitored on the monitor irregularly and will have a negative impact on the fetus due to lack of oxygen supply, which will result in epilepsy in the fetus in the future (Aulia et al., 2022; Djafar et al., 2022).

TOLAC is one strategy to reduce the cesarean birth rate. TOLAC has been shown to reduce maternal morbidity and mortality during the index pregnancy as well as future deliveries. Although successful vaginal delivery resulting from TOLAC is associated with less morbidity than scheduled cesarean delivery, failed TOLAC ending in cesarean delivery is associated with more morbidity than scheduled cesarean delivery. Vaginal delivery after cesarean section (VBAC) with the success rate of vaginal delivery after a previous cesarean section is uniformly stated to be 60–85% (Musdalifah, 2024).

According to research conducted by Diaris & Kusumaningsih (2020), the results showed that there was a relationship between maternal knowledge and the mother's desire to choose a VBAC delivery method with a value of  $p=0.01$ , which means there was a relationship between knowledge and the mother's desire in choosing a VBAC delivery method. Most mothers chose the repeated SC method, namely 71.0%, and only 29.6% chose the VBAC method. Mothers with sufficient knowledge about pregnancy, childbirth, and VBAC are 54.8%, with less than 22.6%. There was a relationship between knowledge and the mother's desire to choose the VBAC delivery method ( $P=0.01$ ).

Knowledge is understanding or information about a subject you gain through experience or study that is known either by one person or people in general (Darsini et al., 2019). Support from the family, especially the husband, psychologically during pregnancy and childbirth. Meanwhile, material support has a big influence in determining the mother's choice of delivery method. (Mandey et al., 2020; Kurniyawan et al., 2023). The support of health workers in question is a way to integrate the activities of health workers into practice. Those who have completed formal education are recognized and given authority by the government to carry out their duties and responsibilities professionally. Professional health workers are seen not only for their ability to look after and care for clients but also for their ability to provide comprehensive services, both from biological, psychological, social, and spiritual aspects, with enthusiasm accompanied by a sincere and sincere smile (Sulaiman, 2021). This study aimed to determine the relationship between maternal knowledge, family support, and health worker support on the choice of the VBAC method at TPMB West Jakarta City in 2024.

## METHOD

This research design is quantitative analytical research with a cross-sectional design. Analytical research aims to analyze the relationship between independent and dependent variables by conducting hypothesis testing. Regarding quantitative data in the form of numbers, or quantitative data that is scored (scoring). Quantitative data is data in the form of numbers or scores and is usually obtained using data collection tools whose answers are in the form of a range of

scores or weighted questions. Cross-sectional is research to study the dynamics of correlation between risk factors or independent variables and the effect or dependent variable that is observed, or data collected at the same time to find out whether there is a relationship between knowledge, support from health workers and family support and the choice of method Vaginal Birth After Caesar (VBAC) delivery at TPMB Cengkareng Region, West Jakarta 2024

The population taken in this study were all pregnant women in the second and third trimesters with a history of CS once and absolutely no indications of 100 respondents in several TPMBs in the Cengkareng Jakarta area. This sampling technique was carried out using total sampling by distributing questionnaires during the ultrasound schedule and Antenatal Care medical record data. Inclusion criteria: pregnant women in the second and third trimesters with a history of CS once and no absolute indications such as a history of uterine rupture or cephalopelvic disproportion and willing to be a respondent.

## RESULT

### Univariate Analysis

Table 1. Frequency Distribution of Choice of Delivery Method Vaginal Birth After Caesar (VBAC) Method

| Selection of Delivery Method<br>Vaginal Birth After Caesarean<br>(VBAC) | Frequency (f) | Percentage (%) |
|---|---------------|----------------|
| Yes   | 25            | 25             |
| No  | 75            | 75             |
| Total   | 100           | 100            |

Based on Table 1, It can be seen that out of 100 pregnant women, the majority did not choose the Vaginal Birth After Caesar (VBAC) method of delivery; 75 pregnant women (75.0%) and 25 (25.0%) chose it.

Table 2. Frequency Distribution of Knowledge of Pregnant Women

| Knowledge of Pregnant Women | Frequency (f) | Percentage (%) |
|-----------------------------|---------------|----------------|
| Good                        | 37            | 37,0           |
| Less                        | 63            | 63,0           |
| Total                       | 100           | 100            |

Based on Table 2. It be seen that out of 100 pregnant women, the majority did not choose the (VBAC) were 63 pregnant women (63.0%), and those with good knowledge were 37 (37%).

Table 3. Frequency Distribution of Family Support

| Family Support | Frequency (f) | Percentage (%) |
|----------------|---------------|----------------|
| Good           | 39            | 39             |
| Less           | 61            | 61             |
| Total          | 100           | 100            |

Based on Table 3, it can be seen that out of 100 pregnant women, most of the family support regarding the Vaginal Birth After the Caesar (VBAC) method was lacking in 61 pregnant women (61.0%).

Table 4. Frequency Distribution of Support for Health Workers

| Support for Health Workers | Frequency (f) | Percentage (%) |
|----------------------------|---------------|----------------|
| Good                       | 32            | 32             |
| Less                       | 68            | 68             |
| Total                      | 100           | 100            |

Based on Table 4, it can be seen that out of 100 pregnant women, most of the support from health workers regarding the Vaginal Birth After Caesar (VBAC) method was poor at 68 pregnant women (68.0%) and good at 32 (32.0%).

## Bivariate Analysis

Table 5. The Relationship between Pregnant Women's Knowledge and the Choice of Vaginal Birth After Caesar (VBAC) Delivery Method

| Knowledge of Pregnant Women | Choice of Vaginal Birth After Caesar (VBAC) Delivery Method |      |    |      | Total |     | p-value | OR     |
|-----------------------------|---|------|----|------|-------|-----|---------|--------|
|                             | Yes   |      | No |      |       |     |         |        |
|                             | N   | %    | N  | %    | N     | %   |         |        |
| Good                        | 19  | 51.4 | 18 | 48.6 | 37    | 100 | 0.000   | 10.028 |
| Less                        | 8   | 9.5  | 57 | 90.5 | 63    | 100 |         |        |
| Total                       | 25  | 25.0 | 75 | 75.0 | 100   | 100 |         |        |

Table 5 shows that of the 37 pregnant women with good knowledge, 19 (51.4%) chose the Vaginal Birth After Caesar (VBAC) delivery method, while of the 63 pregnant women with poor knowledge, 57 (90.5%) did not choose the Vaginal Birth delivery method. After Cesarean (VBAC). The results of the Spearman Rank Correlation test showed that the  $p\text{-value} = 0.000 < 0.05$ , which means there is a significant relationship between the knowledge of pregnant women and the choice of vaginal birth after cesarean (VBAC) delivery method in the Cengkareng area West Jakarta in 2024.

Table 6. The Relationship between Family Support and the Choice of Vaginal Birth After Caesar (VBAC) Delivery Method

| Family Support | Choice of Vaginal Birth After Caesar<br>(VBAC) Delivery Method |      |    |      | Total |     | p-value | OR     |
|----------------|--|------|----|------|-------|-----|---------|--------|
|                | Yes  |      | No |      |       |     |         |        |
|                | N  | %    | N  | %    | N     | %   |         |        |
| Good           | 20   | 51.3 | 19 | 48.7 | 29    | 100 | 0.000   | 11.789 |
| Less           | 5  | 8.2  | 56 | 91.8 | 61    | 100 |         |        |
| Total          | 25   | 25.0 | 75 | 75.0 | 100   | 100 |         |        |

Table 6. shows that of the 29 pregnant women with good family support, 20 (51.3%) chose the Vaginal Birth After Caesar (VBAC) delivery method, while of the 61 pregnant women with poor family support, 56 (91.8%) did not. choose the Vaginal Birth After Caesar (VBAC) delivery method. The results of the Spearman Rank Correlation test showed that the  $p\text{-value} = 0.000 < 0.05$ , which means there is a significant relationship between family support and the choice of vaginal birth after cesarean (VBAC) delivery method in the Cengkareng area, West Jakarta in 2024

Table 7. The Relationship between Health Professional Support and Choice of Vaginal Birth After Caesar (VBAC) Delivery Method

| Health Professional Support | Choice of Vaginal Birth After Caesar (VBAC) Delivery Method |      |    |      | Total |     | p-value | OR     |
|-----------------------------|---|------|----|------|-------|-----|---------|--------|
|                             | Yes   |      | No |      |       |     |         |        |
|                             | N   | %    | N  | %    | N     | %   |         |        |
| Good                        | 19  | 59.4 | 13 | 40.6 | 32    | 100 | 0.000   | 15.103 |
| Less                        | 6   | 8.8  | 62 | 91.2 | 68    | 100 |         |        |
| Total                       | 25  | 25.0 | 75 | 75.0 | 100   | 100 |         |        |

Table 7. showed that of the 32 pregnant women with good support from health workers, 19 (59.4%) chose the Vaginal Birth After Caesar (VBAC) delivery method, while of the 68 pregnant women with poor support from health workers, there were 62 (91.2.2%) did not choose the Vaginal Birth After Caesar (VBAC) delivery method. The results of the Spearman Rank Correlation test showed that the P value = 0.000 < 0.05, which means there is a significant relationship between the support of health workers and the choice of vaginal birth after cesarean (VBAC) delivery method in the Cengkareng area, West Jakarta in 2024.

## DISCUSSION

Based on the results of measuring the choice of Vaginal Birth After Caesar delivery method, from a total of 100 pregnant women respondents, most of them did not choose the Vaginal Birth After Caesar (VBAC) delivery method, 75 pregnant women (75.0%) and 25 (25.0%) chose it. Knowledge is information and understanding about a subject someone or everyone has. Knowledge is understanding or information about a subject you gain through experience or study that is known either by one person or people in general (Darsini et al., 2019). According to the researchers' assumption, the limited sources of information provided by medical personnel are what causes mothers to be unaware of the Vaginal Birth After Caesar (VBAC) delivery method. To increase pregnant women's knowledge about VBAC delivery, medical personnel should provide complete information regarding the benefits, risks, and indications as well as criteria for implementing the VBAC method in order to achieve the desired success. According to research conducted by Diaris and Kusumaningsih (2020), the results were that there was a relationship between maternal knowledge and the mother's desire to choose a VBAC delivery method with a value of  $p=0.01$ , which means there was a relationship between knowledge and the mother's desire to choose a VBAC delivery method. Most mothers chose the repeated SC method, namely 71.0%, and only 29.6% chose the VBAC method. Mothers who have sufficient knowledge about pregnancy, childbirth, and VBAC are 54.8%, with less than 22.6%. There was a relationship between knowledge and the mother's desire to choose the VBAC delivery method ( $p=0.01$ ).

The Relationship between Family Support and the Choice of Vaginal Birth After Caesar (VBAC) Delivery Method in the Cengkareng Area Knowledge of 100 pregnant women out of 61 pregnant women with insufficient family support, 56 (91.8%) did not choose Vaginal Birth After Caesar (VBAC) delivery method. Shared decision-making and discussing the safety of mother and baby are the focus of women's decisions with their families. Support from family, especially husbands, psychologically, during pregnancy and childbirth. Meanwhile, material support greatly influences the delivery method the mother chooses (Mandey et al., 2020). The researcher assumes that there is low family support for the choice of VBAC delivery, the risks that will occur with many health workers providing less support, and the road to VBAC by explaining the risks that



will occur but not telling the benefits and percentage of success of the VBAC. Researchers recommend that pregnant women with non-medical indications be given the opportunity to try a VBAC birth.

According to the researchers' assumption, the limited sources of information provided by medical personnel are what causes mothers to be unaware of the Vaginal Birth After Caesar (VBAC) delivery method. To increase pregnant women's knowledge about VBAC delivery, medical personnel should provide complete information regarding the benefits, risks, and indications as well as criteria for implementing the VBAC method in order to achieve the desired success. The relationship between support from health workers and the choice of delivery method, vaginal birth after cesarean (VBAC). It was found that there was a lack of support from health workers regarding the choice of delivery method, Vaginal Birth After Caesar (VBAC), with a value of 62 (91.2%) not choosing. The role of the health workers in question is a way to integrate the activities of health workers into practice and have complete formal education, which is recognized and given authority by the government to carry out duties and responsibilities professionally (Sulaiman, 2021; Kurniyawan et al., 2023).

The researcher assumes that health support is lacking due to a lack of information and experience of resources and organizational support for implementing VBAC. Which was carried out at a private health center in northern Taiwan According to research results by Chen, W S, Hutchinson, M A et.al, with a quantitative approach used, Women's influence in decision-making includes previous birth experiences, concerns about the risks of normal birth, evaluation of the mode of delivery, current pregnancy situation, sources of information and health insurance. When communicating with obstetricians, some women adhered to the obstetrician's recommendation to have a repeat cesarean section (RCS) without being informed of other alternatives in the results of a survey exploring the preferences of (n=34) women who chose VBAC to feel involved in decision making. In contrast, nearly 20% (n=28) of women who underwent RCS reported not being involved in decision making, based on findings of 13 Australian women undergoing VBAC who reported that previous cesarean section experience was unacceptable and resulted in a longer recovery.

## **CONCLUSION**

The research results show that there is a relationship between knowledge and the choice of vaginal birth after the cesarean (VBAC) delivery method. there is a significant relationship between family support and the choice of delivery method, Vaginal Birth After Caesar (VBAC), and there was a significant relationship between support from health workers and the choice of Vaginal Birth After Caesar (VBAC) delivery method.

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## **CONFLICT OF INTEREST**

There is no conflict of interest in conducting this study.

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