

MATERNAL KNOWLEDGE AND PREOPERATIVE ANXIETY BEFORE CESAREAN DELIVERY

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ABSTRACT

Mothers who undergo childbirth by cesarean section often experience anxiety because surgery is a potential and actual threat to personal integrity that can provoke physiological and psychological stress reactions. One of the factors that affect this anxiety is the mother's level of knowledge. The purpose of this study was to determine the relationship between knowledge and preoperative maternal anxiety before sectio caesarea in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar. The study used an analytical survey design with a cross-sectional approach. The population and sample totaled 20 respondents recruited by total sampling. Data were collected using a knowledge questionnaire and the Hamilton Rating Scale for Anxiety (HRS-A) on November 17–25, 2020, and analyzed using the chi-square test in SPSS version 22. The results showed that most respondents had poor knowledge (55.0%) and experienced mild to moderate anxiety (45.0% each). The chi-square test obtained $p = 0.003 (< 0.05)$, so H_a was accepted. This study concludes that there is a significant relationship between knowledge and preoperative maternal anxiety before sectio caesarea: the better the mother's knowledge, the lower her anxiety level. Therefore, preoperative health counseling and education are important to increase knowledge and reduce maternal anxiety in facing childbirth.

Keywords: anxiety; knowledge; pre-operative; pregnant women; sectio caesarea

ABSTRAK

Ibu yang menjalani persalinan melalui sectio caesarea sering mengalami kecemasan karena pembedahan merupakan ancaman potensial maupun aktual terhadap integritas diri yang dapat membangkitkan reaksi stres fisiologis dan psikologis. Salah satu faktor yang memengaruhi kecemasan tersebut adalah tingkat pengetahuan ibu. Tujuan penelitian ini adalah untuk mengetahui hubungan pengetahuan dengan kecemasan ibu pre-operatif sectio caesarea di Ruang Bersalin RSKD Ibu dan Anak Pertiwi Makassar. Penelitian ini menggunakan desain survei analitik dengan pendekatan cross-sectional. Populasi dan sampel berjumlah 20 responden yang diambil dengan teknik total sampling. Data dikumpulkan menggunakan kuesioner pengetahuan dan Hamilton Rating Scale for Anxiety (HRS-A) pada 17–25 November 2020, kemudian dianalisis menggunakan uji chi-square melalui program SPSS versi 22. Hasil penelitian menunjukkan sebagian besar responden memiliki pengetahuan kurang (55,0%) dan mengalami kecemasan ringan hingga sedang (masing-masing 45,0%). Hasil uji chi-square memperoleh nilai $p = 0,003 (< 0,05)$ sehingga H_a diterima. Simpulan penelitian ini adalah terdapat hubungan yang signifikan antara pengetahuan dengan kecemasan ibu pre-operatif sectio caesarea: semakin baik pengetahuan ibu, semakin rendah tingkat kecemasannya. Oleh karena itu, pemberian konseling dan edukasi kesehatan pra-operatif penting untuk meningkatkan pengetahuan dan menurunkan kecemasan ibu dalam menghadapi persalinan.

Kata kunci: ibu hamil; kecemasan; pengetahuan; pra-operatif; sectio caesarea

1. INTRODUCTION

Section caesarea is a delivery procedure in which the fetus is born through an incision in the anterior abdominal wall and the uterine wall, provided that the uterus remains intact. Advances in medical technology, especially in this method of childbirth, bring great benefits to the safety of mothers and babies and make the delivery process easier (Ratnasari, 2019). However, this surgical procedure often causes psychological problems in the form of anxiety in mothers who are about to undergo it.

The World Health Organization (WHO) sets the average standard for section caesarea in each country at 5–15% per 1,000 births worldwide (Sihombing, 2017; Sumaryati, 2017). According to the 2017 Indonesian Demographic and Health Survey, the national rate of cesarean deliveries reached 7% of total deliveries, with a higher proportion of 9% among first births. In general, the number of cesarean sections in government hospitals ranges from 20–25% of total deliveries, while in private hospitals it is much higher, at approximately 30–80% (Sumelung, 2018).

In Indonesia, the incidence of section caesarea based on 2017 national survey data was approximately 1,200,000 out of 5,690,000 deliveries, or about 24.8% of all deliveries (Ministry of Health of the Republic of Indonesia, 2017). In South Sulawesi, cesarean deliveries accounted for 49% in 2017, increasing to 54.6% in 2018, and in the January–April 2019 period there were 158 cases, or 48.9% (Ministry of Health of the Republic of Indonesia, 2018). For the Makassar City area, the Makassar City Health Office recorded 326,629 cases of section caesarea in 2018 (Makassar City Health Office, 2018).

Data obtained from UPT RSKD Ibu dan Anak Pertiwi Makassar show that the number of patients who underwent cesarean delivery was 777 in 2018, 309 in 2019, and 299 in the January–June 2020 period. The high rate of cesarean deliveries makes the psychological readiness of the mother an important aspect that needs to be considered by health workers.

Anxiety can be experienced by mothers before section caesarea surgery because surgery is a potential and actual threat to a person's integrity that can arouse physiological and psychological stress reactions (Asmadi, 2018). Anxiety is a vague feeling of discomfort caused by fear accompanied by a response, and it serves as a signal that helps individuals prepare for danger (Sutejo, 2017). Maternal emotions greatly affect the course of childbirth and can even slow down and complicate the process.

Knowledge can be obtained from various sources of information that improve a person's understanding and can therefore reduce anxiety in dealing with problems. Pregnant women's understanding of the childbirth process is very important, because pregnant women often have disturbing thoughts as a form of anxiety reaction. Information obtained from various sources affects one's level of knowledge; the more information obtained, the broader the knowledge possessed (Notoatmodjo, 2017).

The impact of anxiety on mothers undergoing cesarean delivery can threaten the safety of both mother and fetus. This can occur due to the mother's lack of knowledge of the procedure to be undertaken. Therefore, education for preoperative section caesarea patients is generally provided before the procedure, including an explanation of the indications, preparations, surgery-related risks, and the procedures to be performed, so that patients can take good care of themselves and their babies and avoid complications.

Research conducted by Jaya (2017) on the relationship between parity status and maternal anxiety before section caesarea surgery found a relationship between parity status and maternal anxiety in facing childbirth. That study differs from the present study, which focuses on knowledge as a factor related to anxiety.

Based on a preliminary survey conducted on July 18, 2020 through observation of sectio caesarea patients in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar, data were obtained on 20 pregnant women who were about to undergo cesarean delivery. A total of 14 women (60%) stated that they felt anxious about facing childbirth, and 6 women (40%) experienced mild anxiety characterized by trembling lips and subtle hand tremors. Based on these observations, the researcher assumed that knowledge greatly affects the anxiety level of preoperative sectio caesarea patients. Therefore, this study aimed to examine the relationship between knowledge and preoperative maternal anxiety before sectio caesarea in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar.

2. METHOD

This study was an observational study with an analytical survey design using a cross-sectional approach, which aims to determine the relationship between the knowledge variable and preoperative maternal anxiety before cesarean section, in which the variables were measured at the same time (Nursalam, 2015).

The research was carried out in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar from November 17 to 25, 2020. The population in this study consisted of all mothers who were about to undergo sectio caesarea surgery and who met the inclusion criteria, totaling 20 people. The sampling technique used was total sampling, in which all members of the population were sampled, so that the number of samples in this study was 20 respondents (Nursalam, 2017).

The instrument consisted of two questionnaires. The knowledge variable was measured using a questionnaire that had been used in previous research (Hidayat, 2012), with a product-moment correlation validity value of less than 0.05 and high reliability of 0.735. The questionnaire consisted of 10 question items on a Guttman scale (yes = 1, no = 0); knowledge was categorized as good if the score was > 5 and poor if the score was ≤ 5 . The anxiety variable was measured using the Hamilton Rating Scale for Anxiety (HRS-A), which covers 14 groups of anxiety symptoms scored 0–4, so that anxiety was categorized as no symptoms, mild, moderate, severe, and very severe/panic.

Primary data were collected directly through the distribution of questionnaire sheets to respondents, while secondary data were obtained from UPT RSKD Ibu dan Anak Pertiwi Makassar as complementary data. Data processing was carried out through editing, coding, and tabulation stages. Data analysis consisted of univariate analysis to describe the frequency distribution of each variable and bivariate analysis using the chi-square test with SPSS version 22.0 to test the relationship between the knowledge and anxiety variables at a significance level of $\alpha = 0.05$. The ethical principles applied in this research included anonymity, confidentiality, and informed consent.

3. RESULTS AND DISCUSSION

3.1 Results

This study involved 20 maternal respondents who were about to undergo sectio caesarea surgery in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar. The results are presented in the form of univariate and bivariate analyses as follows.

Table 1. Frequency Distribution of Respondents by Age

Age	Frequency (n)	Percentage (%)
20–25 years	3	15.0
26–30 years	8	40.0
31–35 years	6	30.0
36–40 years	3	15.0

Age	Frequency (n)	Percentage (%)
Total	20	100

Source: Primary data, 2020

Table 1 shows that of the 20 respondents, the largest age group was 26–30 years with 8 respondents (40.0%), while the smallest age groups were 20–25 years and 36–40 years, with 3 respondents each (15.0%).

Table 2. Frequency Distribution of Respondents by Education

Education	Frequency (n)	Percentage (%)
Elementary school	2	10.0
Junior high school	6	30.0
Senior high school	6	30.0
Bachelor's degree	6	30.0
Total	20	100

Source: Primary data, 2020

Table 2 shows that most respondents were educated at the junior high school, senior high school, and undergraduate levels, with 6 respondents (30.0%) each, while the fewest were at the elementary level with 2 respondents (10.0%).

Table 3. Frequency Distribution of Respondents by Knowledge

Knowledge	Frequency (n)	Percentage (%)
Poor	11	55.0
Good	9	45.0
Total	20	100

Source: Primary data, 2020

Table 3 shows that most respondents had poor knowledge, namely 11 respondents (55.0%), while respondents with good knowledge numbered 9 (45.0%).

Table 4. Frequency Distribution of Respondents by Anxiety Level

Anxiety Level	Frequency (n)	Percentage (%)
No symptoms	1	5.0
Mild	9	45.0
Moderate	9	45.0
Severe	1	5.0
Total	20	100

Source: Primary data, 2020

Table 4 shows that respondents' anxiety levels were mostly in the mild and moderate categories, with 9 respondents (45.0%) each, while the no-symptoms and severe categories each had 1 respondent (5.0%).

Table 5. Relationship between Knowledge and Preoperative Maternal Anxiety Before Sectio Caesarea Surgery

Knowledge	No Symptoms	Mild	Moderate	Severe	Total n (%)	p-value
Good	0 (0.0%)	9 (45.0%)	2 (10.0%)	0 (0.0%)	11 (55.0)	0.003
Poor	1 (5.0%)	0 (0.0%)	7 (35.0%)	1 (5.0%)	9 (45.0)	

Knowledge	No Symptoms	Mild	Moderate	Severe	Total n (%)	p-value
Total	1 (5.0%)	9 (45.0%)	9 (45.0%)	1 (5.0%)	20 (100)	

Source: Primary data, 2020

Based on Table 5, respondents with good knowledge mostly experienced mild anxiety (9 respondents; 45.0%) and a small proportion experienced moderate anxiety (2 respondents; 10.0%). In contrast, respondents with poor knowledge mostly experienced moderate anxiety (7 respondents; 35.0%), and even up to the severe category (1 respondent; 5.0%). The chi-square statistical test obtained $p = 0.003$, which is smaller than $\alpha = 0.05$, so H_a was accepted and H_o was rejected. This means that there is a significant relationship between knowledge and preoperative maternal anxiety before cesarean section in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar.

3.2 Discussion

3.2.1 Knowledge of Mothers Before Sectio Caesarea Surgery

The results show that the majority of respondents had poor knowledge. This condition is influenced by various factors, both internal and external, including age, education, and the availability of information. Information obtained from various sources affects one's level of knowledge; the more information obtained, the faster a person acquires extensive knowledge (Notoatmodjo, 2017). Nonetheless, a person with a low level of education does not necessarily have low knowledge, because knowledge can also be obtained through experience (Mubarak, 2017).

Age also affects knowledge, because older people generally have a better level of maturity and thinking ability (Nursalam, 2015). This finding is in line with Suhartik (2015), who explained that most pregnant women undergoing sectio caesarea have sufficient knowledge, influenced by their level of education, most of whom were at the high school and university levels. The higher a person's education, the better their level of knowledge generally is.

3.2.2 Maternal Anxiety Before Sectio Caesarea Surgery

Respondents' anxiety levels were mostly in the mild and moderate categories. Patients often consider surgery a daunting prospect because it involves specialized equipment, rooms, and nursing procedures. This anxiety arises because the patient has no prior experience with the things they will face during surgery, such as anesthesia, pain, changes in body shape, and the inability to mobilize after surgery (Kasdu, 2018).

A person's anxiety response depends on personal maturity, understanding in facing challenges, self-esteem, and the coping mechanisms used (Stuart, 2017). Astria (2015) stated that respondents with primary and secondary education tend to experience more anxiety than those with higher education, because the higher the level of education, the easier it is for a person to receive information and, consequently, the more knowledge they have (Notoatmodjo, 2017).

3.2.3 The Relationship between Knowledge and Anxiety

The chi-square test obtained $p = 0.003$ (< 0.05), indicating a significant relationship between maternal knowledge and preoperative sectio caesarea anxiety. The relationship is inverse: the better the mother's knowledge, the lower her level of anxiety, and vice versa. According to Notoatmodjo (2017), knowledge is a very important domain in the formation of a person's actions and is a predisposing factor that influences behavior.

These findings are in line with Sundari (2019), who found a negative and significant relationship between patients' knowledge of preoperative information and preoperative anxiety, where the higher a

person's knowledge, the lower their level of anxiety. Similarly, Zamriati (2016) concluded that there is a significant relationship between age, parity, and experience and the level of maternal anxiety in facing childbirth.

The anxiety experienced by respondents was caused by a feeling of threat to physical integrity due to the surgical procedure, which causes pain and impaired mobility (Sudiyanto, 2018). Therefore, efforts to reduce anxiety can be made through health education or counseling. Oetomo (2015) explained that counseling for cesarean section patients is important to foster psychological strength and increase patients' knowledge about surgery. In addition to knowledge, therapeutic communication has also been shown to be related to the anxiety level of pre-cesarean section patients, with $p = 0.004$ (Kasana, 2017).

4. CONCLUSION

Based on the results of the study, it can be concluded that the level of knowledge of mothers before cesarean section surgery was mostly poor (55.0%), while anxiety levels were mostly in the mild and moderate categories (45.0% each). The chi-square test obtained $p = 0.003$ (< 0.05), so it can be concluded that there is a significant relationship between knowledge and preoperative maternal anxiety before sectio caesarea in the Maternity Room of RSKD Ibu dan Anak Pertiwi Makassar. The better the mother's knowledge, the lower the level of anxiety experienced.

For the research site, these results are expected to serve as a reference for nursing practice, especially the provision of preoperative counseling and health education to reduce patient anxiety. For educational institutions, the results can be used as learning material on the management of preoperative maternal anxiety. Future researchers are advised to examine other factors that affect knowledge and anxiety, such as parity and experience, and to use larger sample sizes so that the results are more representative.

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6. CONFLICT OF INTEREST

The author declares that there is no conflict of interest regarding the publication of this article.

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