
The Relationship between Anxiety Levels and Pain Degrees in Post-operative Caesarean Patients at Pasirian Hospital

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ABSTRACT

Surgery is a potential or actual threat to a person's integrity that can arouse anxiety when faced with it, thus causing feelings of discomfort or fear. One of the most common responses in postoperative patients is the level of anxiety and discomfort. This study aims to analyze the relationship between the level of anxiety and the degree of pain in postoperative sectio-caesarea patients at Pasirian Hospital. This research is a correlational study with a cross sectional research design. Data were taken from postoperative sectio-caesarea patients with SAB anesthesia at Pasirian Hospital with the instruments used were anxiety level questionnaire sheets (HARS) and pain level observation sheets. The total population of 45 respondents, the sample studied was 40 respondents by accidental sampling. Then the data were analyzed manually and on a computer with the Spearman Rank test. The results showed that of the 40 respondents studied, most (52.5%) aged 31-40 years, education level (70%) had high school education, based on occupation (57.5%) Housewives (IRT), (67.5 %) did not have a history of cesarean section, (52.5%) were primigravida in the history of labor, and primigravida (52.5%) had a history of distance delivery. Meanwhile (70%) respondents with the characteristics of severe anxiety levels and the characteristics of severe pain degrees were (60%) respondents. Based on the Spearman Rank test, the p value of 0.000 is smaller than (0.05), it can be concluded that H1 is accepted, meaning that there is a relationship between the level of anxiety and the degree of pain in postoperative cesarean section patients at Pasirian Hospital. Pain is everyone's subjective, so as a nurse must assess and evaluate the problem of pain. Provide information about the surgical process and provide relaxation therapy to patients to reduce anxiety levels.

Keywords: Anxiety, Pain, Sectio Caesarea

INTRODUCTION

Surgery is a potential or actual threat to a person's integrity that can arouse anxiety when faced with it, thus causing feelings of discomfort, worry or fear. Psychological responses not only affect the level of anxiety but will affect the next complication in patients with sectio-caesarea, namely pain. Pain is an uncomfortable feeling condition caused by a stimulus such as a physical stimulus, or a mental or psychological one (Prasetyono, 2014) . Pain that occurs for a long time can also affect the quality of life, so it requires good treatment, one of which is with the help of family or peers (Afandi, 2016).

The Global Health Survey by WHO (2013) which is written in world health statistics data states that the largest SC incidence is in the Americas (36%), the Western Pacific region (24%) and the European region (23%). According to WHO, the incidence of sectio-caesarea in England in 2014 reached 20% and 29.1% (Dwijayanti, 2017) . The increase in deliveries by cesarean section in all countries during 2007-2018 was 110,000 per birth throughout Asia (Nurhayati et al., 2018) . Based on a survey in the United States, nearly 73 million patients have had a caesarean section each year (Astutik & Kurlinawati, 2017).

The increase in the incidence of Sectio Caesarean (SC) does not only occur in developed countries, developing countries also get a significant increase, one of which is Indonesia. Cases of delivery by cesarean section in Indonesia since 2012 have increased every year. In 2013 accounting for 9.8% of the total 49,603 births (Afriani & Anggy, 2017) . Meanwhile, according to the obstetrics and gynecology team, Dr. Soetomo Surabaya that the incidence of SC in 2012 has reached 29.6%. Delivery with SC in East Java province reached 11.2% of the national total, the number is spread

across all cities/districts in East Java. The city of Surabaya became the largest at 1.8%, and Lumajang Regency reached 0.7% of SC cases (Afriani & Anggy, 2017).

Based on data from medical records at the Pasirian Regional General Hospital in the operating room in 2018, 100 SC events were found, in 2019 there were 200 events, in 2020 there were 360. The results of direct observations by researchers using the interview method found that out of 10 postoperative patients SC surgery, 8 patients experienced severe pain and 2 patients admitted moderate pain and 5 patients complained of high anxiety. Handling patients with post-caesarean section surgery requires special treatment so a proper initial assessment is crucial for the continuity of the treatment process (Putri et al, 2021).

Based on a case study conducted by researchers at the Pasirian Regional General Hospital on December 21, 2020 through direct observation and history taking of patients in the inpatient room with a total of 10 respondents, it was found that 5 respondents had severe anxiety levels, 4 respondents had moderate anxiety levels, and 1 respondent had moderate anxiety levels. mild level of anxiety, the most problem in postoperative SC patients. Patients who have had a sectio-caesarea surgery process are anxious because they think about the length of the healing process, impaired mobilization, disturbed sense of comfort and disturbed sleep patterns. Meanwhile, the respondent's pain level was found as many as 7 respondents had severe pain scale and 3 respondents had moderate pain scale. This was indicated by the patient's grimace and increased heart rate.

One of the most common responses in postoperative patients is the onset of discomfort and anxiety levels. Anxiety is a psychological response that arises to stress and contains physiological and psychological components. Most postpartum mothers with sectio-caesarea will feel worried that if the body is moved to a certain position postoperatively it will affect the surgical wound that has not healed after the operation has just finished, also because of the pain felt by the mother after the anesthetic effect wears off. Mother must go through to recover, such as ambulation which should be on the second day the patient is able to walk with assistance and will think about how long it will take to feel pain and how long the healing process will take. So that there is a need for psychological preparation for patients by providing support, hope and education about things that can reduce anxiety levels, showing that stress greatly contributes to the severity of post-operative patient pain and fatigue one week after surgery (Mulyawati, 2015). Patients with pain can increase the hormone cortisol which can affect the performance of other organs, so a therapy that can reduce this hormone is needed, one of which is tai-chi exercise. In addition, pain can also be diverted by applying virgin coconut oil (Kurdi et al, 2021; Rizek et al, 2022).

A person's psychological response will not only affect the level of anxiety but will affect subsequent complications. One of the complications in patients with SC wounds is pain. Pain is a condition of uncomfortable feeling caused by certain stimuli such as physical stimuli, or mental (psychological) stimuli, pain can also be subjective, so that everyone's response is not the same when feeling pain. Pain cannot be measured objectively, for example by using a blood test, so the degree of pain can only be measured through the recognition of the person who feels it. Postoperative pain for sectio-caesarea is generally felt in the incision scar with a number of stitches to close the wound on the abdomen. The sensation that is felt is sharp with a continuous duration of weighting during mobilization (Mulyawati, 2015). Based on the above background, the researcher is interested in conducting a study entitled "The Relationship between Anxiety Levels and Pain Degrees in Patients with Postoperative Sectio Caesarea at the Pasirian Regional General Hospital".

METHOD

The research design used in this study uses the correlation study method to determine the relationship between anxiety levels and pain degrees, correlation is a type of research design aimed at testing the relationship between the independent variable and the dependent variable. And with a cross sectional approach, which is a study in which the variables including risk factors and variables including effects are observed at the same time at the same time (Notoatmodjo, 2015). The population in this study were all postoperative cesarean section patients at the Pasirian Regional General Hospital in August 2021 with a total of 45 people. Sampling technique using non-probability Sampling with Accidental Sampling technique. The variables used are the level of anxiety and the degree of pain in patients with postoperative caesarean section. The inclusion criteria for this study were patients who had undergone caesarean section surgery under SAB anesthesia at the Pasirian Regional General Hospital and patients with contraindications for Relative Spinal Anesthesia at the Pasirian Regional General Hospital. The exclusion criteria for this study were spontaneous postpartum patients at the Pasirian Regional General Hospital, post sectio-caesarea patients with General Anesthesia at the Pasirian Regional General Hospital, patients with contraindications to Absolute Spinal Anesthesia at the Pasirian Regional General Hospital and post sectio-caesarea patients with problems emergencies such as KPD, fetal distress, pregnant women with PEB, babies with breech or twisted positions, and placental factors.

RESULT

Characteristics of Respondents based on Age

Table 1. Characteristics of Respondents by Age

Characteristics	Frequency	Percentage
Age		
< 20 Years	5	12.5
21-30 Years	11	27.5
31-40 Years	21	52.5
> 40 Years	3	7.5
Total	40	100.0

Based on table 1.it is found that the characteristics of respondents based on age, most of the respondents are aged 31-40 years, amounting to 21 respondents (52.5 %). And very few aged > 40 years as many as 3 respondents (7.5 %).

Characteristics of Respondents based on Education Level

Table 2. Characteristics of Respondents Based on Education Level

Characteristics	Frequency	Percentage
Education level		
Not school	1	2.5
Elementary school	5	12.5
Senior High School	28	70.0
College	6	15.0
Total	40	100.0

Based on table 2.it is found that the characteristics of respondents based on education level, most of them have a high school education level, amounting to 28 respondents (70%). And very few who do not go to school that is as much as 1 respondent (2.5 %).

Characteristics of Respondents based on Occupation

Table 3. Characteristics of Respondents by Occupation

Characteristics	Frequency	Percentage
Occupation		
Civil servant	4	10.0
Private	11	27.5
Farmer	2	5.0
House wife	23	57.5
Total	40	100.0

Based on table 3.it is found that the characteristics of respondents based on their occupations are mostly housewives (IRT), which are 23 respondents (57.5%). And very few of the respondents who work as civil servants as many as 4 respondents (10%).

Characteristics of Respondents based on History of Sectio Caesarea

Based on table 4.the characteristics of respondents based on a history of cesarean section surgery were found, most of the respondents did not have a history of cesarean section, which amounted to 27 respondents (67.5%).

Table 4. Characteristics of Respondents Based on History of Sectio Caesarea

Characteristics	Frequency	Percentage
History of SC		
Yes	13	32.5
No	27	67.5
Total	40	100.0

Characteristics of Respondents based on Childbirth History

Table 5. Characteristics of Respondents Based on Childbirth History

Characteristics	Frequency	Percentage
Childbirth History		
Primigravida	21	52.5
Multigravida	19	47.5
Total	40	100.0

Based on table 5.the characteristics of the respondents based on the history of childbirth, most of the respondents were primigravida, which amounted to 21 respondents (52.5%).

Characteristics of Respondents based on History of Spatial Delivery

Table 6. Characteristics of Respondents Based on History of Spatial Delivery

Characteristics	Frequency	Percentage
History of Spatial Delivery		
< 1 year	21	52.5
12 years old	4	10
35 years old	12	30
> 5 years	3	7.5
Total	40	100.0

Based on table 6.the characteristics of the respondents based on the history of delivery distance were mostly < 1 year, which amounted to 21 respondents (52.5%). And very few of the respondents who have a history of distance delivery for > 5 years are as many as 3 respondents (7.5%).

Characteristics of Respondents based on Pre-Operational Anxiety Level

Table 7. Characteristics of Respondents Based on Pre-Operational Anxiety Levels

Characteristics	Frequency	Percentage
Pre-Operational Anxiety Levels		
Light	0	0.0
Currently	9	22.5
Heavy	28	70.0
Panic	3	7.5
Total	40	100.0

Based on table 7.the characteristics of the respondents based on the level of anxiety were found, most of them had a severe level of anxiety, which amounted to 28 respondents (70%). And no one has a mild level of anxiety, namely 0 respondents (0%).

Characteristics of Respondents based on the Degree of Pain in Post-C-section Surgery Patients

Table 8. Characteristics of Respondents Based on the Degree of Pain in Post-C-section Surgery Patients

Characteristics	Frequency	Percentage
Degree of Pain		
No Pain	0	0.0
Light	8	20.0
Currently	8	20.0
Heavy	24	60.0
Total	40	100.0

Based on table 8.the characteristics of respondents based on the degree of pain in postoperative sectio-caesarea patients were found, most of the respondents had severe pain degrees, namely as many as 24 respondents (60%). And none of the respondents have a painless scale of 0 respondents (0%).

Analysis of the Relationship between Anxiety Levels and Pain Degrees in Patients with Postoperative Sectio Caesarea at Pasirian Hospital

Table 9. Analysis of the Relationship between Anxiety Levels and Pain Degrees in Patients with Postoperative Sectio Caesarea at Pasirian Hospital

Anxiety Level	Degree of Pain in Post-C-section Surgery Patients			Total	Correlation Value	p value
	Light	Currently	Heavy			
Light	0	0	0	0	0.795	0.000
Currently	8	1	0	9		
Heavy	0	7	21	28		
Panic	0	0	3	3		
Total	8	8	24	40		

*Spearman rank statistic test data

Based on table 9. the analysis of the relationship between anxiety levels and pain degrees in patients with postoperative sectio-caesarea at Pasirian Hospital was obtained with the Spearmank Rank test using SPSS Windows 20, the p value = 0.000, so $p = 0.000 < 0.05$. It can be concluded that H1 is accepted, which means that there is a relationship between the level of anxiety and the degree of pain in patients with postoperative caesarean section at Pasirian Hospital. While the value of the correlation coefficient between the level of anxiety and the degree of pain, the results of the calculated r value of 0.795, this shows that the variable has a significant correlation coefficient because the calculated r value is $0.795 > r$ table 0.361.

DISCUSSION

Based on table 7.the characteristics of the respondents based on the level of anxiety mostly have a severe level of anxiety, which is 28 respondents (70%). And no one has a mild level of anxiety, namely 0 respondents (0%). From the results of the study, some respondents had severe anxiety levels indicated by respondents feeling irritable, having bad feelings, nervousness, feeling tense, afraid of being alone, afraid of strangers, difficulty starting to sleep, not sleeping well, often waking up from sleep, difficulty concentrating , easy to forget, muscle pain, stiff muscles, unstable voice, red and pale face, weakness, fast and strong heartbeat, frequent breathing, feeling short of breath, nausea, difficulty defecating, stomach pain before and after eating, frequent urination small, dry mouth, easy sweating, headache, restlessness, tension and short and rapid breaths.

Anxiety (anxiety) is a natural feeling disorder (affective) which is characterized by feelings of fear or worry that are deep and ongoing, do not experience interference in assessing reality (Reality Testing Ability), personality is still intact, behavior can be disturbed but is still within normal limits. . There are aspects that are realized from anxiety itself such as fear, helplessness, surprise, a sense of sin or threat, but also aspects that occur outside of awareness and cannot avoid unpleasant feelings (Suliswati, 2012) . The level of anxiety in the respondents postoperative Sectio Caesarea is mostly severe anxiety, amounting to 28 respondents (70%) can be overcome by various methods such as; Repression, namely the act of diverting or forgetting things or desires that are not in accordance with conscience. Repression can also be

interpreted as an attempt to calm or dampen oneself so as not to arise an impulse that is not in accordance with his heart (Prasetyono, 2014).

Relaxation, namely by adjusting the sleeping position and not thinking about problems (Prasetyono, 2014). While Dale Carnegie (2012) added that relaxation and recreation can reduce anxiety by getting enough sleep, listening to music, laughing and deepening religious knowledge. Psychopharmaceuticals, namely treatment for anxiety using drugs such as diazepam, bromazepam and alprazolam which are efficacious in restoring the function of neurotransmitter disorders (nerve conduction signals) in the central nervous system of the brain (lymbic system) (Hawari, 2013). Psychoreligious, namely with prayer and dhikr. Prayer is emptying the mind and asking God to fill it with everything we need. In prayer, people seek strength that can multiply the energy that is only limited in themselves and through a relationship with prayer a deep relationship is created between humans and God (Prasetyono, 2014). Factors that affect the level of anxiety in patients with preoperative Sectio Caesarea seen from the level of Maturity (Maturity) Mature individuals are those who have personality maturity so that it will be more difficult to experience disturbances due to stress. The history of pregnancy makes the experience of dealing with childbirth, especially with sectiocaesarea surgery. In contrast to patients who are facing their first pregnancy and will undergo their first delivery, the stress level will be even more severe. The results of research by Montgomery et al (2012) in New York, USA regarding pre-operative psychological factors on post-operative side effects, showed that pre-operative stress greatly contributed to the severity of post-operative patient pain and fatigue one week after surgery (Mulyawati, 2015). According to researchers, every patient will feel anxious after surgery, including Sectio Caesarea surgery. However, the level of anxiety should be avoided or minimized because it will affect the degree of pain after surgery. Anxiety levels can be avoided with good coping mechanisms and family support. So that it is hoped that it will minimize postoperative pain.

Based on table 8, it is found that the characteristics of respondents based on the degree of pain scale in postoperative sectiocesarean patients, most of the respondents have a degree of severe pain, as many as 24 respondents (60%). And none of the respondents had a painless scale of 0 respondents (0%). From the results of the study, some respondents had a severe degree of pain indicated by respondents feeling an increased heart rate, short and fast breathing, difficulty sleeping, waking frequently, unable to find a comfortable position. The International Association for the Study of Pain (2010) defines pain as a subjective sensory and unpleasant emotional experience related to actual or potential tissue damage that is felt in the event where the damage occurs (Prasetyono, 2014). The psychological response of postoperative Sectio Caesarea patients will not only affect the level of anxiety but will affect subsequent complications. One of the complications in patients with SC wounds is pain (Mulyawati, 2015). One of the factors that influence pain is anxiety. Pain and anxiety are complex, so they are inseparable. Anxiety increases the perception of pain, but pain can also cause a feeling of anxiety. If anxiety does not get attention, then this anxiety will cause a serious problem in pain management. Pain that occurs in post-cesarean section patients is influenced by a history of caesarean section distance of less than 1 year and a history of caesarean section surgery more than 2 times, it will exacerbate the sensation of post-cesarean section pain because of adhesions in the skin layer between fascia and muscle tissue. This is in accordance with previous research conducted by Sumanto, et al with the theme of the relationship between pain levels and anxiety levels in postoperative sectiocaesarea patients at PKU Muhammadiyah Gombong Hospital which stated that there was a relationship between pain levels and anxiety levels in postoperative sectiocaesarea patients. The results of the study stated that the higher the level of pain experienced by the patient, the higher the level of anxiety of the patient (Purba, 2012).

The degree of pain experienced by postoperative Sectio Caesarea patients is very different from each patient. Sectio Caesarea surgery includes abdominal surgery with laparotomy. So that the level of pain felt can reach the level of moderate pain to the level of severe pain. In this study, most of the respondents experienced severe pain as many as 24 respondents (60%). The management provided by health workers at the Pasirian Hospital is to provide pharmacological therapy, namely the administration of Tramadol injection drug dissolved in 100 ml to be consumed in 12 hours. Non-pharmacological pain management is also applied, for example relaxation and distraction techniques which are directly given education from nurses to families and patients after the patient leaves the operating room. According to the researcher, the results of this research at the Pasirian Hospital were found to have 24 respondents (60%). Most of the respondents experienced severe pain because there was an incision wound after surgery. Postoperative pain for sectiocaesarea is generally felt in the incision scar with a number of stitches to close the wound on the abdomen. Pain sensation cannot be measured objectively, for example by using a blood test, the degree of pain can only be measured through the recognition of the person who feels it. So that at Pasirian Hospital, pain complaints in postoperative patients can be overcome by pharmacological methods, namely analgesic drugs that are usually given by doctors to reduce pain due to surgical wounds. Relaxation and distraction methods are also very effective in reducing the degree of pain, techniques to divert attention to a particular object or activity can reduce pain significantly. To accelerate the healing of

surgical wounds, cleanliness must always be considered by being treated regularly and paying attention to nutritional intake. So that the pain will be resolved quickly.

Based on table 9. the analysis of the relationship between the level of anxiety and the degree of pain in patients with postoperative sectio caesarea at the Pasirian Hospital was obtained with the Spearman Rank test using SPSS Windows 20, the p value = 0.000, so $p = 0.000 \leq 0.05$. It can be concluded that H1 is accepted, which means that there is a relationship between the level of anxiety and the degree of pain in patients with postoperative caesarean section at Pasirian Hospital. While the value of the correlation coefficient between the level of anxiety and the degree of pain scale, the results of the calculated r value of 0.795, this shows that the variable has a significant correlation coefficient value because the calculated r value is $0.795 > r_{table} 0.361$. The results of this study are in accordance with research on the relationship between pain levels and anxiety levels in postoperative sectio caesarea patients at PKU Muhammadiyah Gombong Hospital, so that there is a relationship between pain levels and anxiety levels in postoperative sectio caesarea patients with an Assymp Sig value of 0.038. Based on the results of this study, it shows that the higher the level of pain experienced by postoperative sectio caesarea patients, the higher the level of anxiety because pain is an uncomfortable feeling that causes anxiety in patients (Sumanto et al., 2011). The results of this study are also in accordance with research conducted by Montgomery et al regarding preoperative psychological factors, showing that preoperative stress greatly contributes to the severity of postoperative patient pain and fatigue one week after surgery with a p value of 0.001. Based on the results of this study, it was stated that preoperative psychological factors influenced complications in respondents for one week by postoperative pain (28%), nausea (11%) and fatigue (25%). These results provide strong evidence for the role of preoperative psychological factors in determining the experience of symptoms one week after an invasive surgical procedure. In short, a quarter of the patient's pain and fatigue is determined by psychological factors. Further analysis revealed that in all cases, the expectant response continued to make a unique contribution to postoperative adverse events after accounting for preoperative emotional distress. The results of this study also indicate that response expectations are a mediator of the effects of emotional disturbance on post-operative pain and fatigue. These results highlight the importance of hope in investigating the pre-operative psychological influence and difficulty on post-operative outcome. From a clinical perspective, the results suggest that patients with higher levels of pre-operative expectations and emotional distress appear to be at greater risk for experiencing higher levels of post-operative side effects (Montgomery, et al. 2011).

A study conducted by Nikolajsen in Denmark in 2012 investigated persistent pain in patients undergoing major Sectio Caesarea. Based on the results of the study they reported that 12.3% of the mothers experienced pain at the end of the period ranging from 6 to 18 months. In addition, daily pain was reported in 5.9% of patients. In this study, the risk factors for persistent pain were caesarean section surgery under general anesthesia, previous pain problems, and postoperative pain. Based on the existing theory, researchers link the relationship between anxiety variables and pain through the body's physiological response, namely patients with anxiety disorders show differences in the concentration of hormone balance in the body. When experiencing anxiety, several hormones that will experience changes compared to normal subjects are catecholamines, and MHPG, cortisol and ACTH, growth hormone, prolactin, thyroid hormone, and B-endorphin. Endocrine disorders in anxious people include epinephrine, norepinephrine, dopamine, and catecholamine metabolites, especially methoxyhydroxyphenethylene glycol (MHPG). This hormonal change will affect the function of the hypothalamus so that it activates the work of neurotransmitters on the complications experienced by postoperative respondents, due to physiological effects that cause the body's balance to be disturbed so that the impact will appear which in turn will aggravate the respondent's perception of pain. According to researchers at Pasirian Hospital, the correlation coefficient between the level of anxiety and the degree of pain resulted in the calculated r value of 0.795, this indicates that this variable has a significant correlation coefficient value because the calculated r value is $0.795 > r_{table} 0.361$. The relationship between pain and anxiety is complex, so its existence is inseparable. If the anxiety of postoperative sectio caesarea patients at Pasirian Hospital does not get attention, then this anxiety will cause a problem in pain management. In this study, based on the spearman rank statistical test, a correlation value of $p = 0.000$, which means that there is a relationship between the level of anxiety and the degree of pain in patients with postoperative caesarean section at Pasirian Hospital. This section can be separated into some sub sections. Write discussion here. This section can be separated into some sub sections. Write discussion here. This section can be separated into some sub sections. Write discussion here. This section can be separated into some sub sections.

CONCLUSION

The level of anxiety in patients with postoperative caesarean section at Pasirian Hospital was 28 respondents (70%) in the severe category. The degree of pain scale in postoperative sectio-caesarea patients at Pasirian Hospital was 24 respondents (60%) in the severe category. From the test results using the Spearman rank correlation test, the p-value = $0.000 < = 0.05$, so H_0 is rejected and H_1 is accepted, which means there is a relationship between the level of anxiety and the degree of pain in patients with postoperative caesarean section at RSUD Pasirian).

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