

# The Effect of Lemon Aromatherapy on Reducing the Pain Intensity on Post Sectio Caesarea Patients at Malahayati Islamic Hospital Medan in 2020

Niasty Lasmy Zaen

Universitas Haji Sumatera Utara, North Sumatera Province, Indonesia

## ARTICLE INFO

### Keywords:

Lemon Aromatherapy, Pain, Sectio Caesarea

### E-mail:

[niasty05lasmy@gmail.com](mailto:niasty05lasmy@gmail.com)

## ABSTRACT

*Sectio Caesarea* childbirth can have an impact after the operation, namely the pain. Pain is an unpleasant feeling experienced by post sectio caesarean patients. The pain is gone arise caused by surgery on the abdominal wall and the uterine wall that can't be lost in one day gives the impact of a mobilization is limited. Various ways can reduce post sectio caesarean of pain, one of them is by giving lemon aromatherapy. This study aims to know if there is an effect of lemon aromatherapy on reducing pain intensity on post-caesarean section patients. This research is a quasi-experimental research with one group pretest and posttest designs. The population in this study were all Post Sectio Caesarea mothers on February 2020 at Rumah Sakit Islam Malahayati Medan were 40 peoples. The sampling technique were carried out by accidental sampling technique so that the number of samples were 28 people. Data analysis used Wilcoxon test. The results of this study indicate that from the pre test results, the majority of respondents had moderate pain are 13 respondents (46.4%), while from the post test results the majority of respondents had mild pain are 12 respondents (42.9%). The results of data analysis showed the value of  $P = 0.000$ , where  $0.000 < 0.05$ . This case showed that treatment has an effect on reducing pain intensity on post sectio caesarean patients at Rumah Sakit Islam Malahayati Medan in 2020. It was concluded that lemon aromatherapy had an effect on reducing pain intensity on post sectio caesarean patients. For respondents to be able to use lemon aromatherapy to reduce of pain on Post Sectio Caesarea patients as a non-pharmacological method that is safe and easy to apply at home.

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## 1. Introduction

Sectio Caesarea childbirth is an artificial childbirth, the fetus is born by incision on the abdominal wall and uterine wall on the uterus, provided that the uterus is intact and the weight of the fetus is more than 500 grams (Duma, 2018).

The World Health Organization (WHO) in 2015 for almost 30 years the rate of childbirth with Sectio Caesarea to be 10% up to 15% of all the process of childbirth in developing countries. Based on the results of data RISKESDAS 2013, the percentage of the birth mother with Sectio Caesarea in Indonesia 9.8% with the highest proportion in DKI Jakarta 19.9% and the lowest in Southeast Sulawesi 3.3%. Based on data from the Department of Health of the Province of Riau increased childbirth with Sectio Caesarea from 2013 about 422 cases to be 3,949 cases in 2014 (Utami, 2016).

Sectio Caesarea childbirth gives the impact for both mother and baby, the pain is gone arise caused by surgery on the abdominal wall and the uterine wall that can't be lost in one day gives the impact of a mobilization is limited, bonding attachment (bond of affection) is interrupted/ not fulfilled. Activity of Daily Living (ADL) is interrupted for mother and consequently the nutrients the baby is reduced because the delay in giving a breastfeeding since the beginning, but it also affects the early Initiation of breastfeeding that will affect the durability of the body of a baby who was born in SC. The pain felt by mother post partum with Sectio Caesarea came from the wound on the stomach. The pain usually occurs in 12 to 36 hours after surgery, and decreased on the third day (Deor, 2016).

Discomfort felt by the patient post Sectio Caesarea can lead to the risk of complications to the baby or mother. Handling that is often used to reduce the pain post Sectio Caesarea is specialized handling of pharmacology. The combination of pharmacologically to control the pain with non-pharmacological so the intensity of the pain can be reduced and the recovery period is not elongated. The action was used to shorten the pain. Management non-pharmacological that can be used one of them is aromatherapy. Aromatherapy is the therapeutic use of essential oil or extract of pure oil to help improve or keeping on health, increasing the spirit, the passion, the refreshing and soothe the soul and also stimulate the healing process.

The working mechanism of aromatherapy in the human body takes place through two physiological system, namely the circulation of the body and the olfactory system. Fragrances affect another organs until it can caused a strong effect on emotions. Aromatherapy is captured by receptors in the nose, then give more information because in the brain that control emotion and memory and gives the information to the hypothalamus which is the regulator of the internal systems of the body (Rostinah, 2019).

Lemon aromatherapy is a type of aromatherapy which can be used to solve the pain and anxiety. On lemon contained Limonene which will obstruct the action of prostaglandins that it can reduce the pain and useful to control the Sikooksigenase I and II, preventing the activity of prostaglandins and reduce the pain. The content of Linalil Acetate on lemon aromatherapy useful to normalize the state of the emotions and the condition of the body is unbalanced and had efficacy as a sedative and a tonic, especially in the nervous system (Rofi'ah, 2019).

The actions of the non-pharmacological in management of the pain is a new trend that can be developed and is an alternative method that can be used on mother to reduce the pain of post Sectio Caesarea. Non-pharmacological method can give a relaxing effect to the patient and can relieve muscle tension and emotions and can reduce the pain (Astuti, 2009 in Narrilawati, 2015).

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## 2. Research Purpose

### 2.1 The General Purpose

As a general purpose in this research conduct to know is there influence of lemon aromatherapy to decrease scale of the pain on post Sectio Caesarea patients at Rumah Sakit Islam Malahayati Medan 2020.

### 2.2 The Special Purpose

- To know the scale of the pain post Sectio Caesarea before being given lemon aromatherapy.
- To know the scale of the pain post Sectio Caesarea after being given lemon aromatherapy.
- To know the influence of lemon aromatherapy to decrease the scale of pain on post Sectio Caesarea patients at Rumah Sakit Islam Malahayati Medan 2020.

### 2.3 Research Function

- For Researcher  
This research can provide the information and knowledge of the researchers to know the effect of lemon aromatherapy to decrease the scale of pain on post Sectio Caesarea patients.
- For Education Institution  
This research can provide the benefits to the progress of science and the writing is also expected to be used as a reading material at the library of Universitas Haji Sumatera Utara.
- Other Researcher  
This research can increase knowledge in an effort to provide information for the next researcher who wants to research about the effect of lemon aromatherapy to decrease the scale of pain on post Sectio Caesarea patients.

## 3. Method

### 3.1 The Research Design

The research design used is Pre-Experiment with One Group Pretest-posttest design, where this design does not have a comparison group (control) but the first observation (pretest) is carried out which allows researchers to examine changes that occur after the experiment, (Notoatmodjo, 2017).

### 3.2 The Research Population

The population are the subject of research encompasses all the elements that exist in the research area (Arikunto, 2012). The population in this research were all Post Sectio Caesarea mother on February, 2010 at Rumah Sakit Islam Malahayati Medan.

### 3.3 The Research Sample

The sample is a cluster or a specific number of members of the set are selected in a certain way so as to represent the population (Supardi, 2013). So that obtained the samples are 28 patients at Rumah Sakit Islam Malahayati Medan .

### 3.4 The Sampling Technique

This research uses accidental sampling technique. Accidental sampling is sampling by accident by taking respondents who happen to be in a place that is in accordance with the place of research (Notoatmodjo, 2010). In this accidental sampling technique, researchers took respondents at that time at Rumah Sakit Islam Malahayati Medan on February 2020.

## 4. Result and Discussion

### 4.1 Univariate Analysis

**Table 1.**

Demographic Data of Post Sectio Caesarea Patients at Rumah Sakit Islam Malahayati Medan in 2020.

No	Demographic Data	Frequency	Percentage (%)
1	<b>Age</b>		
	17-25 Years	4	14,3
	26-35 Years	22	78,6
	36-45 Years	2	7,1
	<b>Total</b>	<b>28</b>	<b>100%</b>
2	<b>Education</b>		
	SMP	3	10,7
	SMA	15	53,6
	DIII	3	10,7
	S1	6	21,4
	S2	1	3,6
	<b>Total</b>	<b>28</b>	<b>100%</b>

**Table 2.**

The frequency Distribution of the Patients Pain Post-Sectiona Caesarea before being Given Lemon Aromatherapy at Rumah Sakit Islma Malahayati Medan in 2020.

No	Back Pain	Frequency
1	Mild Pain	4
2	Moderate Pain	13
3	Severe Pain	11
4	No Pain	0
	<b>Total</b>	<b>28</b>

**Table 3.**

The frequency Distribution of the Patients Pain Post-Sectiona Caesarea After being Given Lemon Aromatherapy at Rumah Sakit Islma Malahayati Medan in 2020.

No	Back Pain	Frequency	Percentage (%)
1	Mild Pain	13	46,4
2	Moderate Pain	12	42,9
3	Severe Pain	1	3,6
4	No Pain	2	7,1
<b>Total</b>		<b>28</b>	<b>100</b>

**Table 4.**

The distribution of the Average Pain Intensity Respondents were Given Lemon Aromatherapy on Post Sectio Caesarea Patients at Rumah Sakit Islam Malahayati in 2020.

Category	Mean	N	Std. Deviation	Min - Max
Pain Intensity before being given Lemon Aromatherapy	6,50	28	1,991	3-9
Pain Intensity after being given Lemon Aromatherapy	3,21	28	1,969	0-7

**Table 5.**

The distribution of the Wilcoxon Signed Ranks the Pain of Respondents Before and After being given Lemon Aromatherapy on Post Sectio Caesarea patients at Rumah Sakit Islam Malahayati in 2020.

Pain Intensity before and after being given Lemon Aromatherapy	N	Persentase (%)	Mean Rank	Sum of Ranks
Negative	27	96,4	14	378
Positive	0	0	0,00	0,00
Ties	1	3,6		
Total	28	100	-	-

#### 4.2 Univariate Analysis

**Table 6.**

The Wilcoxon test on the Respondents Given Lemon Aromatherapy to the Pain Post Sectio Caesarea at Rumah Sakit Islam Malahayati Medan in 2020.

Respondens	Pretest	Posttest	Z	P
28	28	28	-4.616 <sup>a</sup>	.000

#### 4.3 Discussion

##### a. Reduction of pain on Post Sectio Caesarea patients at Rumah Sakit Islam Malahayati Medan in 2020.

The results of research conducted by researchers that most of the respondents experienced a decrease of pain. Before being given lemon aromatherapy, there are no experienced a decrease of pain, while after being given lemon aromatherapy there are 27 patients experienced a decrease of pain, and 1 person did not experience a decrease.

##### b. Lemon Aromatherapy

Statistical analysis Wilcoxon showed that p value = 0.000 < 0.05, it can be concluded that there is an effect of lemon aromatherapy to decrease the intensity of pain on post sectio caesarea patients.

#### 5. Conclusion

Based on the results of the research conducted and the data obtained at Rumah Sakit Islam Malahayati Medan in 2020, it can be concluded as follows:

- Before being given lemon aromatherapy on Post Sectio Caesarea patients at Rumah Sakit Islam Malahayati Medan in 2020 the majority of respondents experienced moderate pain.
- After being given lemon aromatherapy on Post Sectio Caesarean Patients at Rumah Sakit Islam Malahayati Medan in 2020 the majority of respondents experienced mild pain.
- There are Effect of Lemon Aromatherapy on Reducing Pain Intensity on Post Sectio Caesarea Patients at Rumah Sakit Islam Malahayati Medan in 2020.

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