

## The Relationship of Early Mobilization and Wound Healing of Inflammation Phase among Post Cesarean Section Women at PMI Hospital Bogor West Java

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### Article Info:

Submitted:  
30-07-2021  
Revised:  
25-05-2022  
Accepted:  
26-05-2022

DOI:

<https://doi.org/10.53713/nhs.v2i2.42>



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### ABSTRACT

Early mobilization is one of postpartum maternal care mobilization which is important to accelerate recovery, the lack of mobilization will make the women condition worsen. Based on interviews conducted with 5 respondents of post cesarean section patients in Gardenia Room of PMI Hospital Bogor, out of 5 respondents 3 of them said they did not practice early mobilization because they felt anxious in the area of post cesarean section wound. This study aims to determine the relationship between early mobilization and the process of wound healing of inflammation phase among post caesarean section women in Gardernia Room of PMI Bogor West Java. The researcher used descriptive correlational with cross sectional approach. The sample used in this study is total sampling. The instruments used in this study consisted of demographic questionnaires, respondent characteristics, early mobilization, early mobilization observation sheets and BWAT questionnaires. Data are analyzed using Chi-Square test to find out whether there is an effect of mobilization on the post casarean section wound healing process. The results showed that there is an effect of early mobilization on wound healing process of inflammation phase among post caesarean section women with a p value of 0,000. Early Mobilization is very important to reduce the risks of prolonged bed rest and is done to help heal postoperative caesarean sores and also could improve the Nursing planning program for wound healing process for women post SC specific by phase of inflammation.

Keywords: early mobilization; wound healing; postoperative cesarean

### INTRODUCTION

Maternal and child health is a priority in the implementation of health efforts, because mothers and children are a vulnerable group to the condition of the family and its surroundings in general. It is important to assess the health status and performance of maternal and child health efforts (Lubis, 2018). Labor and birth are physiological events, in the process of delivery the baby, placenta, and membranes are expelled from the uterus through the birth canal. This process begins with cervical dilatation and dilatation as a result of uterine contractions with regular frequency, duration, and strength. Labor is considered normal if the process occurs at term (after 37 weeks) without any complications (Eriyani, Shalahudding, Maulana, 2018). Every woman wants labor to go smoothly and can give birth to a perfect baby. Delivery can go normally, but it is not uncommon for the delivery process to experience obstacles and must be carried out through surgery or Cesarean Section (Sihombing, Saptarini, & Putri, 2017).

Cesarean Section is a surgery to give birth to a child through an incision in the abdominal wall and uterus (Nirwana, Isnaniah, & Rizani, 2014). Indications for cesarean delivery are influenced by maternal age, maternal parity, maternal education, occupation, socio-cultural and other factors. In Indonesia, Cesarean Section is generally performed when there are certain medical indications, as an act of terminating a pregnancy with complications. In addition, Cesarean Section is also an alternative to childbirth without medical indications because it is considered easier and more comfortable. Cesarean Section section as much as 25% of the number of births are carried out to mothers who do not have a high risk for normal delivery or other birth complications (Rezeki & Sari, 2018)

The prevalence of Sectio caesarea continues to increase from year to year, according to the World Health Organization (WHO) recommends that the delivery rate with Sectio Cesarean (SC) should not be more than 5-15% in developed countries, the frequency of CS ranges from 1,5-7%, while in developing countries the proportion of births with CS is around 21.1% of 1000 births in the world, in government hospitals the average is 11%, while in private hospitals it can be more than 30%. The incidence of Sectio caesarea in Indonesia according to the Indonesian Demographic and Health Survey (IDHS) in 2017 showed that 17% of live births in the 5 years before the survey were from women 15-49

years old who were born through the sectio caesarea process. The percentage of deliveries by cesarean section increased from 7% in the 2007 IDHS to 17% in the 2017 IDHS, while based on the results of the Basic Health Research (Riskesdas) in 2013, it showed births using the Sectio Caesarea method were 9.8% of the total 49,603 births throughout the year. 2010 to 2013, with the highest proportion in DKI Jakarta (19.9%) and the lowest in Southeast Sulawesi (3.3%) (Sihombing, Saptarini, & Putri. 2017). The birth rate in the city of Bogor in 2016 was 9246 births.

Post-surgery SC wounds are classified as acute wounds. Acute wounds are wounds that heal according to the expected time period or in other words according to the concept of healing (Maryunani, 2014). The wound healing process must go through certain stages, namely, the inflammatory phase, the proliferative phase and the maturation phase. Wound care has progressed very rapidly. Technology in the health sector also contributes greatly to support the practice of wound care. Delayed wound healing can be caused by bleeding, infection, fever, pain, tearing of stitches due to trauma. Thus, nurses are required to have adequate knowledge and skills related to the wound care process starting from a comprehensive assessment, planning appropriate interventions, implementing actions, evaluating results found during treatment and documentation of systematic results (Darulis, Kundaryanti, & Novelia, 2021). In patients with SC surgery, they tend to lie down to maintain a stiff whole body, causing stiff joints, poor posture, tenderness if they do not mobilize early and the recovery process takes a long time, Mobilization is important to accelerate the mother's recovery so that she can return to normal daily activities. The lack of awareness of post-sectio caesarea mothers doing early mobilization will make the mother's condition worse and make post-sectio caesarea recovery hampered (Heryani & Ardenny, 2016; Sri Wahyuningsih, Hayati, & Adi Safitri, 2021).

These results are supported by previous researchers, namely Indramien Netty (2013) who examined the relationship between early mobilization and wound healing after cesarean section surgery in the obstetrics ward of H. Abdul Manap Hospital, Jambi City in 2012. The study was conducted for 4 days through direct observation of postoperative mothers. Sectio Caesarea operation which aims to see and observe about the implementation of early mobilization and post-cesarean wound healing, the results of the study obtained p-value = 0.028 which means that statistically there is a significant relationship between early mobilization and wound healing after Sectio Caesarea.

A preliminary study conducted at the PMI Hospital in Bogor, found that the incidence of Sectio Caesarea was 740 out of 1866 births (40%). The birth rate by cesarean section is quite high with a comparison with normal delivery of 1126 births (60%). When the study conducted interviews with 5 post sectio caesarea patients in the Gardenia room of PMI Hospital Bogor, 3 of them said they did not do early mobilization because of anxiety in the post sectio caesarea wound area so that they could suppress and increase pain in the post sectio caesarea wound area with wound conditions which is still red on the 7th day and the wound is not yet dry. Two other patients said that they had been doing activities by moving their limbs as best they could with the condition of the wound on the 7th day having improved. There is no redness and the wound has started to dry. This shows that there are still many post sectio caesarea patients who do not do early mobilization properly and the condition of the wound is not good. Based on the data above, the researcher is interested in examining the relationship between early mobilization and the healing process of maternal wounds in the post sectio caesarea inflammation phase in the Gardenia room of the PMI Hospital, Bogor, West Java 2020.

## METHOD

This research is included in the type of descriptive analytic research with a cross sectional approach. The Population in this study were 30 patients at PMI Hospital Bogor West Java. The sampling technique uses a total sampling technique. The data collection tool used a questionnaire that has been tested for validity. Data were analyzed using the chi square test to determine the relationship between early mobilization and the healing process of maternal wounds in the post Sectio Caesarea inflammation phase in the Gardenia room of the PMI Hospital, Bogor, West Java. Research data was taken using a research approval sheet (informed consent), confidentiality (confidentiality), beneficence (principle of benefit), fairness (justice) and anonymous (anonymity).

## RESULT

The research result are pretend in the form of narrative and tables. Research data is divided into two, namely general data and special data. Generate data contains results of univariate analysis of the characteristic of the research sample, namely age, educations, nutritional intake, early mobilization technique in 1 day and the healing process of wound after Sectio Caesarea. Specific data consisted of research variables, early mobilization and wound healing of inflammation phase among post caesarean section women.

**Univariate Analysis**

Table 1. Maternal age, education, nutritional intake and the wound healing process after post SC mother at PMI Hospital Bogor West Java in January 2020 (n: 30)

Variable	f	%
<b>Age</b>		
<20 years old	0	0
20-35 years old	22	73.3
>35 years old	8	26.7
<b>Education</b>		
Elementary school	7	23.3
Junior High School	7	23.3
Senior High School	14	46.7
College	2	6.7
<b>Nutritional Intake</b>		
Consuming foods that contain protein	30	100.0
Do not consume foods that contain protein	0	0
<b>Early mobilization technique in 1 day</b>		
Good early mobilization	24	80.0
Not good early mobilization	6	20.0
<b>Wound Healing process</b>		
Wound Degeneration	0	0
Wound Regeneration	6	20.0
Healthy Tissue	24	80.0

The Table 1 show the characteristics of respondents from 30 respondents, showing most of them aged 20 to 35 years as many as 22 respondents (73.3%) and ages more than 35 years as many as 8 respondents (26.7%). Based on the table above, the number of respondents is dominated by the age of 20 to 35 years (22 respondents) and the mother's last education, the highest education results are High School with 14 respondents (46.7%), Elementary School and Junior High School each with 7 respondents (23.3%), and education the last mother who had the least number of respondents from college was 2 respondents (6.7%). Based on the table above, the number of mothers' last education is dominated by high school education by 14 respondents and the least education is tertiary education by 2 respondents. The nutritional intake of post sectio caesarea mothers, it is known that all patients consume high protein foods, as many as 30 people (100%). The respondents who carried out early mobilization techniques in 1 day/24 hours, it was found that most of the mothers carried out early mobilization techniques well as many as 24 respondents (80%) and did not perform early mobilization well as many as 6 respondents (20%). Based on the table above, the number of respondents is dominated by doing early mobilization well, namely 24 respondents and also the characteristics of 30 respondents with healthy tissue wound healing, namely 24 respondents (80%) and healing with wound regeneration by 6 respondents (20%). Based on the table above, the number of respondents is dominated by wound healing with healthy tissue by 24 respondents.

**Bivariate Analysis**

Table 2. Results Bivariate Analysis the Mobilization Techniques to the Wound Healing Process of Post Sectio Caesarea Mothers of PMI Hospital Bogor West Java in January 2020 (n: 30)

Early Mobilization	Wound Healing Process						Total		p
	Wound Degeneration		Wound Regeneration		Healthy Tissue		n	%	
	n	%	n	%	n	%			
Good	0	0	6	20	0	0	6	20	0.000
Not Good	0	0	0	0	24	80	24	80	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>20</b>	<b>24</b>	<b>80</b>	<b>30</b>	<b>100</b>	

Table 2 shows that from 30 respondents, there are 24 respondents (80%) who mobilize well. Where most of the 24 respondents (80%) experienced a wound healing process with healthy tissue, while 6 respondents (20%) did not

mobilize well where 6 respondents (20%) experienced a wound regenerating healing process. The results of the bivariate test using the Chi-square test at a 95% confidence level ( $\alpha = 0.05$ ) obtained  $P_{value} = 0.000$  ( $0.000 < 0.05$ ), then  $H_a$  was accepted and  $H_o$  was rejected. The results of this bivariate statistical test showed that there was a significant effect between early mobilization on the healing process of maternal wounds in the post sectio caesarea inflammatory phase, PMI Hospital Bogor West Java.

## DISCUSSION

### Early Mobilization of Inflammation phase among Post SC Women at PMI Hospital Bogor West Java

The Result of the study of Early mobilization to inflammation phase are 30 respondents based on respondents who carried out early mobilization techniques, it was found that most of the mothers carried out early mobilization techniques well as many as 24 respondents (80%) and did not perform early mobilization well as many as 6 respondents (20%). So it can be said that the early Mobilization that good for inflammation phase in wound healing process at the post SC women at PMI Hospital bogor west java.

The same Study conducted by Sumarah (2013) on the effect of early mobilization on post sectio caesarea wound healing, early mobilization is a gradual return to the previous mobilization stage to prevent complications and as an effort to reduce pain and facilitate blood circulation. With good blood circulation will affect the wound because the wound requires a good blood circulation for cell growth or repair.

The mobilization according to Indriyani (2016) is an important aspect of physiological function because it is to maintain independence. Early mobilization is an action to guide the postpartum mother as quickly as possible to get out of bed and guide the mother as quickly as possible to walk.

The Postoperative mobilization according to maryunani (2014) is shown to accelerate wound healing, improve circulation, support optimal respiratory function, improve digestive function, reduce postoperative complications, restore patient function as much as possible as before surgery, maintain patient self-concept and prepare patient for discharge.

### Wound Healing Process of inflammation phase among Post SC Women At PMI Hospital Bogor West Java

The Result of the characteristics of 30 respondents with healthy tissue wound healing, namely 24 respondents (80%) and healing with wound regeneration by 6 respondents (20%). So it can be concluded that the Wound healing process to post SC Women at PMI Hospital Bogor West Java are Healthy Tissue.

The Wound healing process according to Arsyanti (2014) the body can repair damaged skin tissue (wounds) on its own which is known as wound healing.

The same Study conducted by Heryani (2016) regarding the effect of early mobilization on post sectio caesarea wound healing said normal wound healing was improved when the wound was free of foreign body objects including bacteria. Wound healing occurs normally without assistance, although some treatment materials can help to support the healing process.

### The Relationship of Early Mobilization and Wound Healing of inflammation phase among post SC Women At PMI Hospital Bogor West Java

The results of the bivariate test using the Chi-square test at a 95% confidence level ( $\alpha = 0.05$ ) obtained  $p$  value =  $0.000$  ( $0.000 < 0.05$ ), then  $H_a$  was accepted and  $H_o$  was rejected. The results of this bivariate statistical test showed that there was a significant relationship between early mobilization and the healing process of maternal wounds in the post sectio caesarea inflammation phase, PMI Hospital, Bogor West Java.

This is in line with previous researchers Eriyani (2018) In their research, they stated that the results of statistical tests using the Mann-Whitney test in the bivariate test showed a significant difference in wound healing with a  $p$ -value of  $0.028$  ( $p < 0.05$ ) in the intervention group and control group.

According to Arisanty (2014), wounds can heal by themselves. Wounds will fail to heal if there are inhibiting factors so that initially ordinary wounds become extraordinarily difficult to heal. There are several factors that play a very important role in supporting wound healing, one of which is mobilization.

According to Mustikarani (2019) Early mobilization is a systematic movement used by mothers after childbirth, both normal delivery and delivery with action. Early mobilization of post sectio caesarea mothers is carried out gradually starting 6 hours after delivery. These movements in early mobilization can help the mother recover after childbirth. Early ambulation can help patients avoid morbidity and improve the patient's early recovery is one of the treatments for postpartum mothers, to maintain independence and guide postpartum mothers to get up from bed and guide mothers as quickly as possible to walk. Mobilization is very important in accelerating the day of hospitalization and reducing the risks due to prolonged bed rest.

The researcher assumes that if the mother performs early mobilization well, the wound healing of the post-Section Caesarea mother will be faster and reduce the mother's risk for prolonged bed rest.

### CONCLUSION

Based on the results of the analysis and discussion, it can be concluded There is a relationship between early mobilization on the healing process of maternal wounds in the post sectio caesarea inflammatory phase at PMI Hospital Bogor with a p value of 0.000. Early mobilization is important to help accelerate wound healing after caesarean section, lack of mobilization can hamper recovery after caesarean section.

For healthy services speciality for Nurses and Midwifery It is hoped that health workers will play an active role in providing counseling about the importance of gradual early mobilization, because early mobilization greatly affects the wound healing process of postoperative sectio caesarea mothers so that they can restore the patient's function as much as possible as before surgery, maintain the patient's self-concept, teach patients to maintain cleanliness. themselves to prevent the risk of infection and health workers provide education about good nutritional intake for post SC mothers.

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