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**Conference Paper** 

# Pain Intensity among Women with Post-Caesarean Section: A Descriptive Study

Dewi Marfuah<sup>1</sup>, Nunung Nurhayati<sup>1</sup>, Astri Mutiar<sup>1</sup>, Mimin Sumiati<sup>2</sup>, and Rani Mardiani<sup>2</sup>

<sup>1</sup>Lecturer, Nursing, Sekolah Tinggi Ilmu Kepearawatan Persatuan Perawat Nasional Indonesia (PPNI), Bandung, West Java, Indonesia

<sup>2</sup>Hasan Sadikin Hospital, Bandung, West Java, Indonesia

#### Abstract

Background: The frequency of Caesarean section increased from 5% to 15% across the world. According to statistics, it is highest in the U.S. or around 24%, and then in Canada about 20%, in Denmark about 13%, 10% in England, and it is lowest in Japan 7%. Post-cesarean section women experience pain due to operative trauma. Individual variability of postoperative pain is influenced by multiple factors, including sensitivity to pain, psychological factors, age, and genetics. Cesarean delivery patients have even more compelling reasons to achieve optimal postoperative pain relief than other surgical patients, but they also present unique challenges. Post cesarean delivery patients are at a higher risk for thromboembolic events, which may also be precipitated by immobility from inadequate pain control or excessive sedation from opioids. Objectives: This research aimed to describe pain intensity among women with post-cesarean Section. Methods: This research conducted at an obstetric ward in Hasan Sadikin Hospital, Bandung, West Java, Indonesia with 60 women with postcesarean section. Instrument used Visual Rating Scale (VAS) for pain measurement. A descriptive Study with Mean ± SD for univariate analysis. Result: Pain intensity among women with post-caesarian section were mild pain level with mean of pain level was 2.8. Women with mild pain level as much as 81,6%. Conclusions: As a nurse, can be considered as a nonpharmacological intervention to reduce the pain of cesarean section effectively and to decrease the number of medications and their side effects.

Keywords: Pain, Post-Caesarean Section, Women

## 1. Introduction

Postpartum is the period after childbirth and the birth of a baby, placenta, and membranes which needed to restore the organs of the womb as before pregnancy which lasts for six weeks [1]. Based on the type of delivery, postpartum is divided into two, namely postpartum is considered normal if the woman is at term, there are no complications, and fetal expenditure that occurs in term pregnancy without advice or medication [2]. The postpartum that has complications after childbirth usually occurs in mothers with

Corresponding Author: Astri Mutiar astrimutiar@gmail.com

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cesarean section delivery, it is mothers who give birth to their fetus through surgery by opening the abdominal wall and uterine wall that is still intact [1]. The frequency of cesarean section increases from 5% to 15% worldwide [2]. Based on statistical data, the highest rate is in the United States around 24%, Canada as much as 20%, in Denmark around 13%, 10% in the UK and the lowest in Japan around 7%.

Labor with a cesarean section can have an impact after surgery, namely pain. Pain that is felt by postpartum mothers with Sectio Caesarea comes from wounds on the stomach [3]. According to previous study said that pain is a mechanism for the body, arises when the tissue is damaged and causes the individual to react to eliminate pain stimuli [4]. The pain usually occurs 12 to 36 hours after surgery, and decreases on the third day [4]. The process of pain according to Lindaman & Athie in Hartanti (2005), is started when the body part is injured by pressure, cuts, cuts, cold or lack of oxygen in the cell, then the injured body part will release various kinds of intracellular substances released into the extracellular space then will irritate the nociceptors. This nerve will stimulate and move along nerve fibers or neurotransmission which will produce substances called neurotransmitters such as four prostaglandins and epinephrine, which carry pain messages from the spinal cord transmitted to the brain and perceived as pain. (Judha, et al., 2012). Good pain control will reduce the intensity of pain that is felt [5].

Childbirth by Sectio Caesarea (SC) has an impact on the mother and baby, the pain that arises due to surgery on the abdominal wall and uterine wall that does not disappear in just one day it gives impacts such as limited mobilization, bounding attachments (bonding affection) disturbed / not fulfilled, Activity of Daily Living (ADL) is disrupted by the mother, and consequently the baby's nutrition is reduced because of the delay in breastfeeding from the beginning, but it also affects the Early Breastfeeding Initiation (IMD) which will affect the immune system of babies born in SC [5]. With a cesarean scar causing pain in the mother so that patients tend to lie down to maintain the entire body stiff and not heed the surgical area, causing joint stiffness, poor posture, muscle contractures, tenderness when not doing early mobilization [7].

The intensity of pain is felt differently by each mother. Pain intensity is a description of how severe the pain is felt by individuals. Measurement of pain intensity is very subjective and individual, and the possibility of pain in the same intensity is felt very differently by two different people. Measurement of pain with the most likely objective approach is to use the body's physiological response to pain itself. However, measurements with this technique also can not provide a definite picture of the pain itself [8]. Pain intensity is the amount of pain that is felt. Pain intensity can be measured using numbers from 0 to 10 on the pain intensity scale [10]. Management to reduce the intensity of pain can be

done pharmacologically or using drugs and can also with non-pharmacological therapy or without using drugs by using certain techniques which will then reduce the intensity of pain itself.

Hasan Sadikin Hospital is a referral hospital for the province of West Java, and is a teaching hospital in West Java. The prevalence of mothers giving birth through cesarean section surgery at Hasan Sadikin Hospital based on medical record records is 80 patients from January-March 2018. From the description above, the study is interested in knowing the description of pain intensity in mothers with Post Sectio Caesarea at RSHS.

### 2. Methods

This is a descriptive study. The sample in this study was a postpartum mother with a cesarean section. Location of data collection was carried out in the RSHS Postpartum Treatment Room. The instrument in this study was a questionnaire to record the characteristics of respondents, and the scale instrument/pain range used Numeric Rating Scale from a score of 0-10. The research sample used a purposive sampling technique with a total sample of 60 people with inclusion criteria: Post Section Caesarea Patients and willing to become respondents. Data analysis in this study used Mean  $\pm$  SD (Standard Deviation).

#### 3. Result

In this study, respondent characteristic included age, parity status, and length of stay in the hospital. The table 1. showed that the majority of respondents (51.7%) aged 26-35 years as many as 31 people. On parity status, the majority of respondents (48.3%) as many as 29 people belong to the multipara group that has more than two children. Then, based on the length of stay obtained that as many as 75% or 45 people were in the day of care, less than three days and as many as 25% or 15 people were in the day of care more than three days.

Based on Figure 1. Most of postpartum mother experience pain intensity, which is 49 people (81.7%) in the category of mild pain.

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Variable	Frequency	
	Ν	%
Age (years)		
• 16-25	16	26,7
• 26-35	31	51,7
• 36-45	13	21,6
Parity Status		
• Primipara	27	45
• Multipara	29	48,3
Grande multipara	4	0,07
Length of stay (days)		
• <3	45	75
• >3	15	25

TABLE 1: Respondent Characteristic (n = 60).



Figure 1: Pain Intensity among Postpartum Women with Caesarean Section.

## 4. Discussion

The results showed that the majority of respondents of reproductive age were not at risk (26-35 years) as many as 51.7% and most of them had a history of no-risk parity, namely multiparity (having 2-4 children). The results found the majority of respondents experienced a mild pain scale that is in the range 1-3. This can be attributed to the majority of respondents who are at a healthy reproductive age (aged 25-35 years) who



are psychologically mature to control emotions, including the response to face pain [9]. The more mature a person's age, the more able to tolerate pain.

Pain intensity measurement tool that researchers use is the VAS (Visual Analog Scale), almost half of the respondents stated that the pain felt was on a mild pain scale, this is because the pain has its significance in individuals. Pain usually produces effective responses that are expressed based on different cultural backgrounds. Pain expression can be divided into two categories, namely, calm and emotion [14]. Patients with calm will generally be silent regarding pain, and they have the attitude to withstand pain while emotional patients will express themselves verbally and will show pain behavior by moaning and crying [14].

The majority of respondents who are in multiparity that is as much as 51.2%, can also affect the reduction in pain scale because most respondents already have experience dealing with postpartum pain. This experience can change the patient's sensation of pain. Previous labor experience related to pain during or after delivery with or without a caesarian can help mothers manage pain management more readily. This is in line with the opinion of Nursalam (2015) that other factors that cause pain are the individual's perception and tolerance of pain, pain threshold, environment, age, experience, culture, beliefs, and stress. As long as this factor is still strong for individuals, pharmacological therapy is needed, so non-pharmacological therapy is needed to improve the ability of individuals to carry out postpartum pain management [11].

Majority of patient pain in the mild category. Mild pain is pain that disappears, especially when doing daily activities and disappears during sleep. If seen from the length of stay of the patient, it was found that the majority of 75% of respondents were on treatment days of less or equal to 3 days. According to previous study one of the processes of wound healing is the inflammatory phase [15]. The inflammatory phase is the phase that will last from the wound until about the fifth day. Disconnected blood vessels in the wound suffered will cause bleeding, and the body, in this case, will try to stop it by vasoconstriction, contraction of the end of the broken vessel (retraction), and hemostasis reaction. Hemostasis occurs because platelets that come out of the blood that comes out of the blood vessels.

Meanwhile an inflammatory reaction occurs. Mast cells in connective tissue produce serotonin and histamine, which increase capillary permeability resulting in fluid exudation, inflammation of inflammatory cells, accompanied by local vasodilation, which causes edema and swelling. Clinical signs and symptoms of inflammation reaction become clear in the form of reddish color due to dilated capillaries (rubor), warm temperatures (heat), pain (dolor), and swelling (tumor). This reaction causes pain in patients with post section cesarean injuries [14, 16].

Pain in the inflammatory phase often occurs in the moderate-severe category. Therefore, the choice of pharmacological interventions is the first choice to help control patient pain. This is what causes the majority of patient pain in this study is mild pain because previously, the patient had received therapy / pharmacological intervention from a doctor.

### **5.** Conclusion

The majority of maternal pain in postpartum Sectio Caesarea is in the mild category. Need to increase the skills or intervention of nurses in a non-pharmacological way to be able to teach and apply these interventions to patients to help control the pain of patients to minimize the impact of pain on postpartum Caesarean section mothers.

### References

- Christina, S., & Kristanti, E. E. (2013). Mobilisasi Dini Berhubungan Dengan Peningkatan Kesembuhan Luka Pada Pasien Post Operasi Sectio Caesaria, 1– 8.
- [2] Aminah, M.S. (2011). Seri Buku Pintar Baby's Corner Kamus Bayi 0-12 bulan. Jakarta: Luxima
- [3] Colson, S. (2012). Biological Nurturing: the laid-back breastfeeding revolution.
- [4] Fraser dan Cooper. (2009). Myles Buku Ajar Bidan. 14th ed. Jakarta: EGC.
- [5] Afroh F, Judha M, Sudarti. 2012. Teori Pengukuran Nyeri & Nyeri Persalinan, Nuha Medika: Yogyakarta
- [6] Hidayat, A. (2007). Metode Penelitian Kebidanan dan Teknik Analisis Data. Jakarta: Salemba Medika. Julianti, dkk. (2014). Materi Pelatihan Postnatal Care. Jakarta: Universitas Indonesia.
- [7] Christina, S., & Kristanti, E. E. (n.d.). Mobilisasi Dini Berhubungan Dengan Peningkatan Kesembuhan Luka Pada Pasien Post Operasi Sectio Caesaria, 1– 8.
- [8] Tamsuri A.(2007).Konsep Dan penatalaksanaan nyeri. Jakarta: EGC.
- [9] Kartikawati, Dewi. (2011). Dasar-Dasar Keperawatan Gawat Darurat. Jakarta: Salemba Medika.
- [10] Anik Maryunani, 2010, Ilmu Kesehatan Anak, Jakarta: CV. Trans Info Media.



- [11] Lisa, U.F., Jalina, M., and Marniati. (2017). Comparison of relaxation with counterpressure massage techniques for reduce pain first stage of labor. In AIP Conference Proceedings (Vol. 1885, No. 1, p. 020179). AIP Publishing.
- [12] Nursalam. (2015). Manajemen Keperawatan. Jakarta: Salemba Medika.
- [13] Potter, P.A. and Perry, A.G. (2010). Canadian fundamentals of nursing. Mosby/Elsevier.
- [14] Raymond S Sinatra, Osca A de Leon-Casasola, Brian Ginsberg, Eugene R Viscusi.(2009). Acute Pain Management. USA: Cambrige University Press.
- [15] Fahey, J. O. (2017). Best practices in management of postpartum pain. The Journal of perinatal & neonatal nursing, 31(2), 126-136.
- [16] Zhang, Y., Huang, L., Ding, Y., Shi, Y., Chen, J., & McArthur, A. (2017). Management of perineal pain among postpartum women in an obstetric and gynecological hospital in China: a best practice implementation project. *JBI database of systematic reviews* and implementation reports, 15(1), 165-177.