

## The Effectiveness Of Using Corsets On Reducing Pain Scale In Post SC Patients At Eka Hospital, South Tangerang In 2022

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### **Abstract.**

*The use of a corset is something that is done by post partum mothers both in normal delivery and sectio caesarea, where the corset can help the process of uterine involution and in post SC delivery can help reduce pain when mobilizing. To determine the Effectiveness of Using Corsets on Reducing Pain Scale in Post SC Patients. Research Methods: This research was experimental (quasi-experimental) with The Nonrandomized Control Group Pretest Posttest Design with a quantitative approach. In this study, it was divided into 2 groups: the control group did not use corsets while the intervention group used corsets. After that the researchers assessed the decrease in pain scale in post SC patients. The number of samples was 20 people. It is known that the average value of the statistical test results obtained a p value = 0.000 (<math>\alpha</math> 0.05), meaning that there is an Effectiveness of Using Corsets on Reducing Pain Scale in Post SC Patients at Eka Hospital, South Tangerang in 2022. Advice to health workers to be able to provide health education or information. to patient about wearing a corset as non farmacologic methode to reduce post caecarea pain.*

**Keywords:** Use of corsets, decrease in post SC pain scale and Eka Hospital.

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### **I. INTRODUCTION**

Childbirth itself is a natural condition of termination of pregnancy where all products of conception are expelled from the mother's womb. Childbirth can take place through the vagina (vaginal) or through the abdomen which we know as sectio caesarea (SC). SC delivery is an artificial delivery, in which the fetus is born through an incision in the abdominal wall and uterine wall with the condition that the uterus is intact and the fetus weighs above 500 grams (Prawirohardjo, 2018). Because the process of delivery with sectio caesarea is so complex, postnatal recovery with sectio caesarea takes longer than vaginal delivery. Nevertheless, the number of deliveries by sectio caesarea is still higher than vaginal deliveries. The results of a world research study published in the medical journal The Lancet against 169 countries owned by WHO and UNICEF, illustrate that 60 percent of countries use the caesarean section method excessively, 25 percent of countries do not use the caesarean section method according to indications. According to WHO the incidence of sectio caesarea in England in 2004 reached 20% and 29.1% (Dwijayanti et al., 2013). The increase in deliveries by caesarean section in all countries during 2007 - 2008 was 110,000 per birth throughout Asia (Nurhayati, Andriyani, & Malisa, 2015). From the results of the 2017 Indonesian Demographic and Health Survey, the number of caesarean section deliveries in Indonesia was 17.02 percent, which is higher than the WHO target of 10 to 15 percent. Based on SIRS (Hospital Information System) data at the Banten Health Service, of the total deliveries with complications in Banten, in 2015 there were 21,965, around 58.5 percent were carried out through sectio caesarea. Most deliveries by caesarean section occurred in the city of Serang, namely 4,915 cases, followed by Serang district with 2,567 cases (Banten Health Office 2017). Most of the postpartum mothers will experience pain. Pain is di Sectio Caesarea omfort that can be caused by the effects of certain diseases or due to injury.

The pain can come from the contracting uterus so that the uterus returns to its pre-pregnancy size (inversio uteri), episiotomy wounds in vaginal delivery, abdominal wound incisions in SECTIO CAESAREA deliveries, and pain at the start of breastfeeding. From the observations, the average pain is more felt on the 0th to 2nd day after giving birth. If the pain is not resolved, it will have a physical and psychological impact on post partum mothers. (Andarmoyo, 2013) Pain management is a process or stage that begins with identifying and managing sensory or emotional experiences associated with tissue or functional damage with sudden or slow onset and mild to severe and constant intensity. The purpose of this pain management is to reduce the pain that is felt, improve the function of the body that hurts and improve one's quality of life. Pain

management is a collection of medical conditions that help manage a person's sensory or emotional experiences related to tissue or functional damage. Pain management will be adjusted to the level of pain felt by that person. This pain management can be done by pharmacological methods, namely by using drugs and or non-pharmacological methods, namely pain management without the use of medical drugs. In nursing care for patients with pain, actions can carry out pain management with this non-pharmacological method. One of the non-pharmacological methods that can be taught and performed by patients with pain is fixation technique. In surgery, fixation is the restriction of motion in certain areas of the body (immobilization). The purpose of these actions is to accelerate healing and reduce pain. In cases of postoperative Sectio caesarea pain resulting from an incision wound in the lower abdomen, this fixation method can be performed using a corset specially designed for postpartum.

Not many studies have discussed the effectiveness of using corsets in post-SC patients, but the workings of these corsets are almost the same as patients who use post-spine surgery where the area experiencing pain will be immobilized with the corset. Research conducted by Kuntono (2022) entitled "The Effect of Lumbar Corset and Back Exercise to Reduce LBP Complaints at PT Sritex Solo" which is contained in the abstracts of the Electronic Theses & Dissertation (ETD) of Gajah Mada University. The results of this study indicate that LBP decreases with the use of a lumbar corset. Researcher I Gede Sujana in his research entitled "Use of Lumbar Corset in Microwave Diathermy Intervention, Transcutaneous Electrical Nerve Stimulation, Ultrasound Reducing Lumbar Spondylosis Pain" in his abstract said the use of lumbar corset in patients with lumbar spondylosis will function to control pain because it can limit or support movement. so it is advisable to add a lumbar corset to the combination of MWD, TENS and US administration to reduce pain in lumbar spondylosis patients. From the results of unstructured interviews conducted in the obstetrics room of a type B private hospital in Tangerang City, South Tangerang, with 10 patients who gave birth by SC, they said that the pain due to SC wounds had decreased since wearing a corset. When measured using a numerical scale, the average pain scale is reduced by 1 to 2 points compared to before using a corset, even though the patient has received analgesics as a medical therapy. Based on this, researchers are interested in knowing the Effectiveness of Using Corsets on Reducing Pain Scale in Post SC Patients at Eka Hospital South Tangerang in 2022

## II. METHODS

This research was conducted to determine the Effectiveness of Using a Corset on Reducing Pain Scale in Post SC Patients. This research was conducted at Eka Hospital Tangerang and the time of research was in November 2022. In this study, it was experimental (quasi-experimental) with The Nonrandomized Control Group Pretest Posttest Design with a quantitative approach. The data used is primary data obtained from observations. Data analysis was used in this study, namely analysis of normality tests and different tests using the t test using SPSS statistics. within 2 months from November & December 2022. Sampling in this study is a total sampling of 15 people. The sample technique used is accidental sampling. The inclusion criteria are willing to use corsets, mothers who have delivered SC and exclusion criteria are not willing to be respondents.

The research instrument was used to measure the pain scale by observing clients with the Visual Analog Scale (VAS) according to pain conditions in the range 0-10. implementation in this study using primary data that has been adapted to the research objectives by dividing into 2 groups, namely the intervention group (using a corset) and the control group (not using a corset). Before conducting research in both the intervention group and the control group, the researcher prepared an observation sheet to assess the scale of pain in post SC patients using the Visual Analogue Scale (VAS) scale whether the pain scale was mild, moderate or severe. Then the researchers treated the post SC patients by giving them the use of corsets. After that the researcher reassessed the post SC pain scale whether there was a change in the pain scale in post SC patients, namely in the mild, moderate or severe category. then the researcher reassessed the notes on the observation sheet in the intervention group and the control group, after knowing the before and after results in the intervention and control groups, the researcher then processed the data.

### III. RESEARCH RESULT

#### A. Univariate Analysis

##### 1. Frequency Distribution of Pain Scale in Post SC Patients in the Intervention Group at Eka Hospital South Tangerang in 2022

Skala Nyeri Pada Pasien Post SC	Pre-test		Post-test	
	(f)	(%)	(f)	(%)
Nyeri Ringan	0	0	8	80
Nyeri Sedang	9	90	2	20
Nyeri Berat	1	10	0	0
<b>Total</b>	<b>10</b>	<b>100</b>	<b>10</b>	<b>100</b>

Based on Table 1, it can be concluded that, in the intervention group during mobilization before being given pain scale treatment at the time of mobilization the majority of moderate pain were as many as 9 people (90%) and after being given treatment with a corset for 2 days in post SC patients, most of them experienced mild pain as many as 8 people (80%).

##### 2. Frequency Distribution of Pain Scale in Post SC Patients in the Control Group at Eka Hospital, South Tangerang in 2022

Skala Nyeri Pada Pasien Post SC	Pre-test		Post-test	
	(f)	(%)	(f)	(%)
Mild Pain	4	40	4	40
Moderate Pain	5	50	6	60
Severe Pain	1	10	0	0
<b>Total</b>	<b>10</b>	<b>100</b>	<b>10</b>	<b>100</b>

Based on Table 2, it can be concluded that, in the control group at the time of mobilization, the majority experienced moderate pain as many as 5 people (60%) and after day 2 without being given a corset, most of them experienced moderate pain as many as 6 people (60%).

##### 3. Average Pain Scale Rating in Post SC Patients in the Intervention Group and Control Group at Eka Hospital South Tangerang in 2022

Variabel	n	Intervensi			Kontrol		
		M	SD	Min-Max	M	SD	Min-Max
Pre-test	20	5,20	1,033	4-7	4,90	1,729	3-7
Post-test		2,60	0,966	1-4	4,00	1,563	2-6

\*n = Sampel; M = Mean; SD = Standard Deviation

Based on Table 3 it is known that, out of 20, it consisted of the intervention group and the control group. In the intervention group during mobilization before being given a corset in post SC patients, the decrease in the pain scale was obtained with an average value of 5.20 and a standard deviation of 1.033, the previous pain scale value had a minimum score of 4, namely moderate pain and a maximum score of 7, namely severe pain. . Then after being given a corset to post SC patients, the average value was 2.60, the standard deviation value was 0.966 and the minimum score was 1, which was a mild pain scale and a maximum 4, which was moderate pain scale. In the control group at the time of mobilization without a corset in post SC patients, the decrease in pain scale obtained an average value of 4.90 and a standard deviation of 1.729, the previous pain scale value had a minimum score of 3, namely mild pain and a maximum score of 7, namely severe pain. . Then on day 2 without being given a corset in post SC patients, the average value was 4.00, the standard deviation value was 1.563 and the minimum score was 2, namely the mild pain scale and the maximum 6, which was the moderate pain scale.

#### B. Normality Test Results

Pengukuran	Kolmogorov-Smirnov <sup>a</sup>	Shapiro-Wilk	Keterangan
Before being given a corset in post SC	0.200	0.191	Normal
after being given a corset in post SC	0.133	0.245	Normal
Before without corset post SC	0.046	0.018	Tidak Normal
After without corset post SC	0.002	0.011	Tidak Normal

Based on Table 4, the results show that the normality test in the intervention group (given corset to post SC patients) and the control group (without corset administration to post SC patients) in the Kolmogorov-Smirnova test ( $p > 0.05$ ) and Shapiro-Wilk ( $p > 0.05$ ). In the current normality test, because the number of samples is below 100, the Shapiro – Wilk value is used,  $p > 0.05$ , which means that the normality test is normally distributed in the intervention group. While the control group got  $p < 0.05$ , meaning that the normality test was not normally distributed.

### C. Analisa Bivariat

The Effectiveness of Using Corsets on Reducing Pain Scale in Post SC Patients at Eka Hospital, South Tangerang in 2022

**Tabel 5.** Hasil Uji Paired T Test

Variabel	n	Pre-test	Post-test	SEM	t	p-value
		M	M			
Intervensi	20	5,20	1,033	0,427	6,091	0,000
Kontrol		2,60	0,966	0,180	5,014	0,001

\*n = Sampel; M = Mean; SEM= Standar Error Mean

Based on Table 5.4 above, it is known that the average value of the statistical test results obtained a p value = 0.000 ( $< \alpha 0.05$ ), meaning that there is an Effectiveness of Using Corsets on Reducing Pain Scale in Post SC Patients at Eka Hospital, South Tangerang, Year 2022

## IV. DISCUSSION

The results of this study indicate that by using a corset in post SC patients during mobilization to reduce pain during mobilization, and it is proven by the results of statistical tests that there is the Effectiveness of Using Corsets on Reducing Pain Scale in Post SC Patients at Eka Hospital South Tangerang in 2022. of 20 consisted of the intervention group and the control group. In the intervention group during mobilization before being given corsets to post SC patients, the average value was 5.20 and a standard deviation of 1.033, the previous pain scale value had a minimum score of 4, namely moderate pain and a maximum score of 7, namely severe pain. Then after being given a corset to post SC patients, the average value was 2.60, the standard deviation value was 0.966 and the minimum score was 1, which was a mild pain scale and a maximum 4, which was moderate pain scale. The results of this study were clarified by Dr. Ilham Utama Surya, SpOG who stated that the use of a corset or stagen is one of the suggestions used for patients who have given birth via SC, while this type of corset is given with a material that is soft and not rough. In addition, when using a corset in post-SC patients, don't wear it too tight because it can put too much pressure on the pelvic floor muscles so that it can increase pain in the abdomen after giving birth by SC. The results of this study are supported by previous research according to Krisnawati, (2021) which states that the use of stagen can affect the involution process. In his research, it was explained that some of the benefits of bengkung are that it can maximize uterine involution, restore abdominal tone, reduce pain and support the back of the postpartum mother so that it helps the formation of body posture more quickly.

The body, especially the abdomen, can get pressure on the stomach so that it helps support the stomach and the lumbopelvic area by putting a little pressure on the transversus abdominis muscles, so that it can help the abdominal muscles work more perfectly. The use of a corset is an action that has been carried out by women for generations after giving birth. As for recommendations for mothers who give birth normally. However, in the current study it is an action to reduce pain after giving birth by SC where post SC mothers after giving birth to SC 24 hours after that will be advised to mobilize by moving the body tilted right or left. Therefore, using a corset is a one way that can help post SC mothers who are doing mobilization is to reduce pain when mobilizing. This was reinforced by Researcher I Gede Sujana in his research entitled "Use of Lumbar Corset in Microwave Diathermy Intervention, Transcutaneous Electrical Nerve Stimulation, Ultrasound Reducing Lumbar Spondylosis Pain". or support movement so it is advisable to add a lumbar corset to the combination of MWD, TENS and US administration to reduce pain in patients with lumbar spondylosis. Meanwhile, according to (Irmadhani, 2021) The effect or impact of not carrying out early mobilization in postoperative patients is that it can cause physiological and psychological harm. Meanwhile,

the physiological danger of not mobilizing early is that it can affect normal metabolic functions, reduce metabolic rate, interfere with carbohydrate, fat and protein metabolism; cause fluid electrolyte imbalance, and calcium; and causes gastrointestinal disturbances such as appetite and decreased peristalsis with constipation and fecal impaction. Immobilization can also put the patient at high risk of respiratory complications, such as: atelectasis (collapsed alveoli) and hypostatic pneumonia (inflammation of the lung due to static or accumulation of secretions), pulmonary embolism, increasing the risk of urinary tract infection and resulting in joint contractures and muscle atrophy.

While the psychological dangers that can occur in immobilized patients are causing a decrease in sensory function, changes in emotional and behavioral responses, such as: hostility, feelings of dizziness, fear and feelings of helplessness to mild anxiety and even psychosis; depression due to changes in roles and self-concept, sleep pattern disturbances due to changes in routine or environment, and changes in coping. SC delivery is divided into two actions, namely conventional SC delivery and SC delivery using the ERACS method. From the mobilization side, the results of this study are in accordance with the theory (Tika, 2022) which states that the ERACS method can reduce postoperative pain, as well as the possibility of a faster recovery process. If generally after undergoing a conventional caesarean delivery the patient is prohibited from moving for 12 hours, then with the ERACS method the patient can sit comfortably after 2 hours after a caesarean section. In fact, in less than 24 hours, the patient can perform light activities, such as urinating or walking independently without fear of pain. Therefore, in the opinion of the researchers in giving birth corsets by SC it can be done according to the time of mobilization which is adjusted to the actions of the delivery process, which in this study proved the effectiveness of giving corsets to reducing pain when post SC patients mobilized so that the results of the study This can be used as a source of knowledge that corsets are very helpful for SC birth mothers in reducing pain during mobilization.

## V. CONCLUSIONS

From the results of the research that has been done, it can be concluded as follows:

- a. In the intervention group during mobilization before being given pain scale treatment at the time of mobilization the majority of moderate pain were as many as 9 people (90%) and after being given treatment with corsets for 2 days in post SC patients, most of them experienced mild pain as many as 8 people (80%) .
- b. In the control group, at the time of mobilization, the majority experienced moderate pain in as many as 5 people (60%) and after day 2 without being given a corset, most of them experienced moderate pain as many as 6 people (60%).
- c. It is known that, out of 20, it consisted of the intervention group and the control group. In the intervention group during mobilization before being given a corset in post SC patients, the decrease in the pain scale was obtained with an average value of 5.20 and a standard deviation of 1.033, the previous pain scale value had a minimum score of 4, namely moderate pain and a maximum score of 7, namely severe pain. . Then after being given a corset to post SC patients, the average value was 2.60, the standard deviation value was 0.966 and the minimum score was 1, which was a mild pain scale and a maximum 4, which was moderate pain scale.
- d. In the control group at the time of mobilization without a corset in post SC patients, the decrease in pain scale obtained an average value of 4.90 and a standard deviation of 1.729, the previous pain scale value had a minimum score of 3, namely mild pain and a maximum score of 7, namely severe pain. . Then the 2nd day without being given a corset in post SC patients obtained an average value of 4.00, a standard deviation value of 1.563 and a minimum score of 2, which is a mild pain scale and a maximum of 6, which is a moderate pain scale.
- e. It is known that the average value of the statistical test results obtained a p value = 0.000 ( $<\alpha$  0.05), meaning that there is an Effectiveness of Using a Corset on Reducing the Pain Scale in Post SC Patients at Eka Hospital, South Tangerang in 2022

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