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Optimization of Acupuncture LI4 and SP6 on Pain with Quality of Life in Post Partum Sectio Caesarea

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ABSTRACT

Pain is an unpleasant experience. In patients who still feel pain, it will affect the mobilization of the mother after cesarean section and all aspects of quality of life. Various attempts have been made to relieve pain both pharmacologically and non-pharmacologically. Acupressure LI4 and SP6 are believed to reduce pain. This study aims to identify the effect of Hegu LI4 and SP6 acupressure on Pain on Quality of Life in Post Partum SC. The research design used was a quasi-experimental with pre-post test non-equivalent control group design. The sampling technique was non-probabilty sampling with consecutive sampling with a total sample of 30 respondents in the treatment group and the control group. Independent bivariable analysis until T-test with a significance value of P <0.05, multivariable analysis using linear regression. The results of this study are expected to help postpartum Sectio Caesarea mothers in reducing pain. The results of this study can reduce pain and improve the quality of life for postpartum SC which will be the basis for studies in the field of obstetrics

Keywords: Acupuncture, Pain, Postpartum, Sectio Caesarea

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INTRODUCTION

Pain is an unpleasant sensory and emotional experience that results from tissue damage [1]. Sectio Caesarea surgery can cause pain due to changes in tissue continuity in the surgical process [2]. Pain in postpartum Sectio Caesarea can cause various problems, namely early mobilization disorders, the lactation process, and even bleeding and infection caused by disturbances of homeostasis and blood circulation [2].

Sectio Caesarea delivery is a midwifery surgical intervention as a life-threatening help for mothers and babies. The World Health Organization (WHO) has reported that the number of cesarean deliveries in the population ranges from 5-15% [3]. Sectio Caesarea shows an increasing trend. From 137 countries, 69 countries (50.4%) have a cesarean section delivery rate of>15% [4].

Pain after cesarean section can affect the mobility of the mother so that it requires analgesic therapy. Pharmacological analgesic therapy often causes allergies and complications [5]. Side effects of using analgesics trigger non-pharmacological treatment as an alternative to pain treatment in post-SC clients because they are considered to have low side effects, are economical, and are easy to do [6].

Acupressure is a non-invasive technique of Traditional Chinese Medicine that is reported to be used for labor induction and managing labor pain [7]. Acupressure is a form of non-pharmacological therapy with healing based on a balance between yin and yang and meridians as energy channels. One hypothesis is that acupressure points have electrical properties that when stimulated can change the level of chemical neurotransmitters in the body. Acupressure is reported through the activation of certain points along with the meridian system, which is transmitted through large nerve fibers to the reticular formation, thalamus, and limbic system to release endorphins in the body. [8]. Acupressure at points LI4 and SP6 has been reported in several studies to be effective in relieving labor pain [9].

METHOD

The design of this study used a quantitative approach with a quasi-experimental with pre-post test non-equivalent control group design. The sampling technique was non-proprobabilitympling with consecutive sampling with a total sample of 30 respondents in the treatment group and the control group. Independent bivariable analysis until T-test with a significance value of $P < 0.05$, multivariable analysis using linear regression. The place of research was in the postpartum room at Siti Fatimah Hospital Sidoarjo in January 2022. Researchers used the WHOQOL-BREF (World Health Organization Quality of Life-BREF) instrument. This instrument was created by the World Health Organization (WHO). The WHOQOL-BREF instrument consists of 26 questions. To assess the WHOQOL-BREF, four domains were combined, namely the physical, psychological, social relations, and environmental domains.

RESULTS

Table 1 Frequency Distribution of Respondents' Characteristics at Siti Fatimah Hospital Sidoarjo

Characteristics	f	%
Age		
High risk <20 & >35% th	0	0%
Low risk >20 & <35 th	30	100%
Parity		
Primipara	13	43%
Multipara	17	57%

Based on table 1, shows that all respondents are classified as low-risk age. Most parities are primiparous.

Table 2 Frequency Distribution of Pain Levels Before and After Acupressure

		T-Test Mean	n	sig
Pretest	**Acupressure LI4 & SP6**	8.03	30	0.000
	Control	8.04	30	0.001
Posttest	**Acupressure LI4 & SP6**	3.76	30	0.001
	Control	7.08	30	0.002
Decrease	**Acupressure LI4 & SP6**	4,27	30	0.000
Difference	**Control**	0,96	30	0.002

Based on table 2 shows that the group with acupressure intervention at points LI4 and SP6 before being given treatment showed an average postpartum Sectio Caesarea pain of 8.03, and after being given acupressure intervention at points LI4 and SP6 showed a decrease in pain intensity with an average of 3.76. . And there is a difference in the decrease in pain intensity between the acupressure intervention groups LI4 and SP6 which is an average of 4.27 compared to the control group with an average of 0.96. From the Independent Sample T-Test, the P-value < 0.000 was obtained. This shows that the decrease in the post-sectional cesarean pain score after giving acupressure on LI4 and SP6 was statistically significant as well as clinically significant.

Table 3 Frequency Distribution of Average Quality of Life of Mothers in Each Domain at Siti Fatimah Hospital Sidoarjo

Domain	x	Score transformation	Quality of Life
Domain 1	26	66	Good
Domain 2	24	70	Good
Domain 3	11	68	Good
Domain 4	31	69	Good

Based on table 3 shows that it is good. Domain 1 (physical health) shows that the results show a better quality of life by showing an average score of 25 transformed into 66. Data were obtained on days 1 and 3 by observing the activities of postpartum mothers with cesarean sections, such as caring for their babies, breastfeeding, and Walking around the bed is done independently. In domain 2 (psychological) the average score of 24 was transformed to 70, and the observation results showed that

mothers expressed happiness with the reduction in postpartum Sectio Caesarea pain experienced previously. Domain 3 (social relations) obtained an average score of 11 transformed into 68, the results of the observation that the mother received the support of her husband and family by showing the mother's social activities well. Domain 4 (environment) got a score of 31 transformed into 69, the data shows that postpartum Sectio Caesarea mothers feel comfortable in the hospital environment related to health services.

DISCUSSION

This study aims to determine the optimization of acupressure at points LI4 and SP6 for pain and quality of life in postpartum cesarean section. There was no significant difference in the proportion and distribution of the study sample (P>0.05). Age, parity, and family support showed a homogeneous and comparable distribution. There were no differences between the two groups, so there was no difference between the two groups so that the bias could be avoided.

Optimization of acupressure at points Li4 and SP6 on pain and quality of life

The analysis showed that acupressure at points LI4 and SP6 had a significant relationship to the decrease in pain intensity of postpartum cesarean section. With a decrease difference of 4.27 with a significance value of P <0.000, which indicates that there is a significant difference in the decrease in pain intensity in the group given acupressure intervention at points Li4 and SP6 so that the hypothesis can be accepted. Pain after surgery due to cesarean section is normal, but you need to be careful if the pain is accompanied by complications, such as pain, stitches that don't close, the appearance of infection, or other symptoms related to the type of surgery. [10]. Pain is also an important multidimensional for the survival of the organism, namely as an adaptive mechanism that warns of a noxious stimulus (noxious). Noxious stimuli stimulate neurons to produce appropriate motor responses in the body to avoid hazards such as pain or tissue damage [11].

Acupuncture stimuli are delivered through Aδ and C nerve fibers causing pain, and numbness as if exposed to an electric current that radiates to an acupuncture point through the meridians where the migration has been proven by Koosnadi Saputra (1999) using technetium pertechnetate on SP6 and LI4 points. The acupuncture point is defined as a cylindrical perforation that is well demarcated from the superficial fascia, 2-8 mm in diameter covered by connective tissue which passes through the neuromuscular bundle and has biophysical properties of low electrical resistance with more positive potential. [12].

Acupressure can stimulate the release of serotonin as a neurotransmitter to the brain stem and stimulates the pituitary gland to produce -endorphins which are chemical compounds that have a comfortable, happy, and immune-boosting effect, help relieve muscle tension and relax the body, -endorphins also function to improve poor blood circulation. [13]. Administration of acupuncture at the LI4 point can activate the hypothalamus as an inhibitor of pain modulation in PAG [14].

At LI4 Hegu point, and SP6 Sanyinjiao plays a role in pain modulation [15]. While the LI4 point serves to help the circulation and flow of electrical energy in the blood circulation channel and stimulate the central nervous node to affect glandular function, which can rebalance energy throughout the body (Umemoto et al., 2019). Acupressure therapy at SP6 and LI4 points is believed to be effective postpartum to reduce pain intensity and improve quality of life in postpartum Sectio Caesarea. Acupressure is proven to be useful for disease prevention, disease healing, rehabilitation (recovery), and increasing body resistance because it is very important to give it post Partum SC. Acupressure can treat stress, anxiety, pain, nausea, vomiting, and other symptoms of illness [16]

The decrease in pain intensity will cause strength so that it feels comfortable it can affect the quality of life of the mother. The results of the study by Rahayuningsih (2013) stated that aspects of quality of life will be able to affect physical activity such as early mobilization in the postpartum period so that it can help accelerate the process of uterine involution. In the study, it was stated that on the third day postpartum Sectio Caesarea was able to get out of bed and walk, taking care of the baby, the results stated that the average quality of life was good in postpartum Sectio Caesarea. [17]. Acupuncture can play a role in increasing the body's immunity, prolonging the patient's life expectancy, and overcoming the side effects of radiotherapy and chemotherapy such as leukocytopenia, nausea, pain, loss of appetite, constipation or diarrhea, insomnia, decreased Hb levels, anxiety to depression. [18]

The mother's healing process is also influenced by family support factors, especially husbands, the motivation given to the mother will increase her enthusiasm for activities to achieve healing. Mother feels capable so that it can affect the quality of life. research by Rahayuningsih (2013) postpartum mothers with good family social support will have a good quality of life. Domains according to WHOQOL–BREF are parameters of quality of life, namely physical domains, psychological domains, social relations domains, and environmental domains [19].

CONCLUSIONS

The bias could be avoided because there was no significant difference with age, parity and family support. Furthermore, groups L14 and SP6 have giving statistically significant decrease post sectional cesarean pain intensity.

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