

THE RELATIONSHIP BETWEEN THE NUTRITIONAL STATUS OF POSTPARTUM WOMEN AND THE WOUND HEALING PROCESS POST SECTIO CAESAREA AT TANJUNG PURA HOSPITAL IN 2024

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ABSTRACT

Background: Sectio caesarea (SC) is a delivery procedure that can cause complications, including prolonged wound healing. The nutritional status of postpartum women plays an important role in accelerating the postoperative wound healing process. Malnutrition can slow tissue regeneration, increase the risk of infection, and prolong the recovery period. **Objectives:** This study aims to analyse the relationship between the nutritional status of postpartum women with the post SC wound healing process at Tanjung Pura Langkat Hospital in 2023. **Methods:** This study used an analytical survey design with a cross-sectional approach. The sample consisted of 30 postpartum mothers who were selected using purposive sampling technique. Nutritional status was measured by upper arm circumference (LILA), and wound healing was assessed using the REEDA scale. Data analysis used chi-square test with a significance level of 0.05. **Results:** Of the 30 respondents, 66.6% had normal nutritional status, while 33.3% had chronic energy deficiency (CED). Wound healing was faster in mothers with normal nutritional status (100%) compared to mothers with SEZ (0%). The chi-square test showed a significant relationship between nutritional status and post SC wound healing ($p=0.000$). **Conclusion:** Good nutritional status is associated with faster wound healing in post SC mothers. Therefore, the fulfilment of optimal nutrition is very important for postpartum women to accelerate the postoperative recovery process.

Keywords: Nutritional status, wound healing, sectio caesarea, postpartum women.

INTRODUCTION

Delivery via sectio caesarea (SC) is a medical procedure performed due to various indications, such as a narrow pelvis, abnormal fetal position, or other obstetric complications. While the procedure can save both mother and baby, it also carries risks, including infection, bleeding and longer wound healing. Factors that affect post-SC wound healing include hygiene, age, medical conditions, and the nutritional status of the postpartum mother.

Adequate nutrition, especially protein, vitamin and mineral intake, plays a significant role in the tissue regeneration process. Nutritional deficiencies can make wounds difficult to heal, increase the risk of infection, and prolong the treatment period. According to WHO (2015), the incidence of post SC wound infection is high, especially in developing countries, which is closely related to the nutritional status of the mother. In Indonesia, the prevalence of SC delivery reached 17.6% in 2018, with a high rate of post-SC complications.

The results of the initial survey at Tanjung Pura Langkat Hospital showed an increase in the number of SC deliveries each year, with the incidence of wounds that experienced delayed healing. Based on this, this study was conducted to analyse the relationship between the nutritional status of postpartum women and the post-SC wound healing process.

MATERIALS AND METHODS

This study uses quantitative research, with a Quasi Experiment research design which is a pseudo experiment which has better internal validity which is carried out longitudinally. This research is included in the Nonequivalent Control Group Design approach, namely in one group where half the sample is given an intervention and the other half a control. The sample in this study were 24 respondents with 12 intervention respondents and 12 control respondents. The sampling technique was purposive and data collection using observation sheets carried out from February-April 2022 in the working area of the Medan Johor Health Centre in 2022.

RESULTS

Univariate Analysis

The following is the distribution of respondents based on nutritional status and wound healing:

a. Nutritional Status

Table: 4.3. Frequency Distribution of Nutritional Status in Post SC Mothers in the Postpartum Room at Tanjung Pura Langkat Hospital in 2023

Nutritional Status	Frequency (n)	Percentage (%)	Total
Normal	20	66,6	100%
SEZ	10	33,3	

Based on table 4.3 above, it is known that of the 30 respondents, the majority had normal nutritional status, namely 20 people (66.6%) and 10 of them experienced SEZ (33.3%).

a. Wound Healing

Table 4.5. Frequency Distribution of Wound Healing in Post SC Mothers in the Postpartum Room of Tanjung Pura Langkat Hospital in 2023

Wound Healing	Frequency (n)	Percentage (%)	Total
Quick	25	83.3	100%
Slow	5	16.6	

Based on table 4.5 above, it is known that of the 30 respondents, the majority of whom healed the wound quickly, namely 25 people (83.3%).

Bivariate Analysis

This bivariate analysis will be used to determine the relationship between the independent variable and the dependent variable. The analysis used is the *Chi-Square Test* with a *confidence interval* (CI) of 95% and a significance level of $p < 0.05$.

Table 4.6. Relationship between Nutritional Status in Post SC Mothers in the Postpartum Room at Tanjung Pura Langkat Hospital in 2023

Early Mobilisation	Variables				N	P-value
	Nutritional Status					
	Normal		SEZ			
	N	%	N	%		
Slow	3	10,7	10	89,3	13	0,000
Quick	0	100	20	0	20	
Total	30	63,2	10	36,8	33	

Based on table 4.6. Above, it is known that out of 30 respondents with slow wound healing and normal nutritional status, there were 3 respondents (10.7%) and for slow wound healing and SEZ as many as 10 respondents (89.3%). While respondents with fast wound healing and nutritional status (SEZ) were 0 respondents (0%) and for fast wound healing and normal / improved status were 20 respondents (100%).

The results of statistical analysis using the *Chi Square* test obtained results where at a significant level $\alpha = 0.05$, $df = 1$, the value of $\rho_{\text{value}} = 0.000$ ($0.000 < 0.05$) then H_0 is rejected and H_a is accepted, meaning that there is a relationship between the nutritional status of postpartum mothers with the wound healing process.

DISCUSSION

The results showed that good nutritional status correlated with faster wound healing in post SC mothers. Of the 30 respondents, the majority (66.6%) had normal nutritional status, while 33.3% experienced SEZ. Rapid wound healing occurred in all mothers with normal nutritional status (100%), while in mothers with SEZ, most experienced longer wound healing (89.3%). Statistical analysis showed a significant relationship between nutritional status and post SC wound healing ($p=0.000$).

This finding is in line with previous research which states that malnutrition contributes to delayed wound healing due to reduced protein and collagen synthesis required in the process of tissue repair. In addition, nutritional deficiencies can weaken the immune system, increase the risk of infection, and slow wound epithelialisation.

Apart from nutritional status, other factors that influence post-SC wound healing include wound hygiene, early mobilisation, and the mother's medical condition. Mothers with a balanced diet and good mobilisation tend to have a faster healing process. Therefore, education on the importance of optimal nutrition and wound care is needed for post-SC women to accelerate postpartum recovery.

Thus, health workers are expected to provide education on the importance of fulfilling adequate nutrition during the postpartum period and provide optimal nursing care to reduce the risk of post-SC complications.

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