

Relationship of Dietary Abstinence and Healing Time for *Sectio Caesarea* Wounds (A Systematic Review Approach)

Yuli Suryanti¹, Sri Emilda²

¹D III Kebidanan, STIKES Mitra Adiguna, Indonesia; email : yulisuryanti21@gmail.com

²D III Kebidanan, STIKES Mitra Adiguna, Indonesia; email : sriemilda1@gmail.com

ABSTRACT

The myth of dietary abstinence is believed by certain groups of people. They believe if they do not have dietary abstinence the wound will not heal soon. This study aims to see the relations between dietary abstinence and the duration of *sectio caesarea* wounds. The study was conducted by having a systematic review approach and the article selection conducted through the google scholar database, EBSCO, Proquest, Oxford based on the criteria related to the published dietary abstinence and the duration of *sectio caesarea* wounds. The journals were published from 2015 to 2020. Ethical clearance at STIKES Mitra Adiguna. The results of the study showed that 10 journals wrote that the duration of wound healing was influenced by nutrition. Good nutrition for the wound healing is fat, protein, carbohydrates, vitamin A, zinc and vitamin C. The conclusion is dietary abstinence done by post *sectio caesarea* mothers will inhibit the *sectio caesarea* wound healing process.

Keywords: Dietary Abstinence, Wound Healing, *Sectio Caesarea*

INTRODUCTION

Sectio caesarea is a childbirth in which the fetus is born through an incision of the front wall of the abdomen and uterine wall based on the condition that the uterus is intact and the fetal weight is above 4000 grams. Medical technology advances, especially in the childbirth method, obviously bring great benefits to the safety of mothers and babies and facilitate the childbirth process. *Sectio caesarea* is the expulsion of the fetus through an incision in the abdominal wall (*laparotomy*) and uterine wall (*hysterectomy*). (Desi Ratna Sari 2019)

According to the World Health Organization (WHO) the caesarean section surgery increased 5 times of the previous year which ranged from 5-15% per 1000 births in the world. The countries having the biggest number of *sectio caesarea* happenings were Brazil (52%), Cyprus (51%), and Mexico (39%). Based on the Indonesian Health Demographic Survey (IHDS) the number of *sectio caesarea* childbirth was at 17% of the nationally total childbirth. (Yuli Suryanti 2020) The description of the presence of maternal risk factors during *sectio caesarea* childbirth was 13.4% due to premature rupture of the membranes; 5.49% due to preeclampsia; 5.14% due to bleeding; 4.40% fetal position abnormalities; 4.25% due to closed birth canal; 2.3% due to a torn uterus. (Viandika and Septiasari 2020)

Wound healing normally requires proper nutrition because the physiological process of wound healing depends on the availability of protein, vitamins (especially vitamins A and C) and minerals. Collagen is a protein formed of amino acids obtained by fibroblasts taken from ingested protein. Vitamin C is needed to synthesize the collagen. Vitamin A will reduce the negative effects of steroids on wound healing. Trace element of zinc is needed for the epithelium formation, synthesis of collagen (zinc) and the unification of collagen fibers. (Roselita 2017)

Nutrition is the main need that must be fulfilled and it must pay special attention, especially for postpartum mothers who remain having perineal wounds and *sectio cesarea* wounds. The main to be considered in nutrition is not only related to the amount of food consumed but also the nutrients contained in it. The nutrition is possibly provided through the food eaten, frequency, and feeding schedule. Substances that contain various nutrients needed by the body are usually contained in fish, eggs, meat and so on. Breastfeeding mothers usually need more nutrition because apart from being used for the healing process they are also to produce breast milk for their babies. (Tetti Solehati 2020)

Dietary abstinence is an individual behavior not to consume certain types of food because of cultural prohibitions passed down from generation to generation. (Deni Imam 2019) There are myths on certain foods that remain being shared by certain groups in the society, especially in relation with breastfeeding. The myths say that if the mothers do not avoid the food they will have festering wound. It is believed that the wound becomes wet and itchy and the breast milk will smell fishy though this belief is detrimental to society. (Yanti 2019) Based on the description above the relationship of dietary abstinence and healing time for *sectio caesarea* wounds. This can be due to

several factors including the lack of maternal knowledge about the benefits of nutrition, and there are still many prohibitions on certain foods that are culturally acquired for generations.

RESEARCH METHODS

Article searching was conducted through databases, namely Google Scholar, EBSCO, Proquest, Oxford based on the research criteria of relations between dietary abstinence and duration of *sectio caesarea* wound healing. The articles were in the journals published from 2015 to 2020. The searching was conducted in February 09-10, 2021 using keywords dietary abstinence, duration of wound healing and *sectio caesarea* that met the inclusion and exclusion criteria. Articles that have been found later in synthesis and analyzed according to the criteria of inclusion and exclusion.

The inclusion criteria in this systematic review are:

Journal on the relationship of abstinence to the long healing wounds of Sectio Caesarea published through google scholar website.

Journals published from 2015 to 2020.

Full-text journal includes abstracts, introductions, research methods, research and discussion results, as well as conclusions and suggestions.

The exclusion criteria in this systematic review are:

Unpublished journals

Journals only display abstracts

Journals cannot be downloaded or paid

This research method used a systematic review approach with Preferred Reporting Items For Systematic Reviews and Metaanalyses (PRISMA).

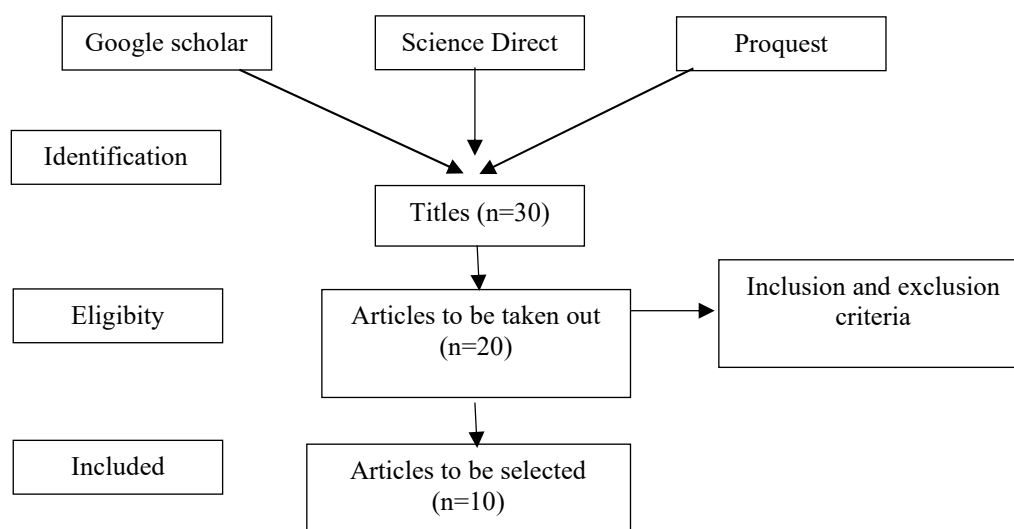


Figure 1. Flow diagram of article selection

RESULTS

In the article searching 30 articles were found and they were then screened by implementing inclusion and exclusion criteria and finally 10 articles of 10 journals that matched to the research criteria were obtained.

Research title	Method (Design and Sample)	Analysis and Results
The Relationship of Dietary Pattern and Post Sectio Caesarea Surgery Wound Healing at dr. Soewondo Regional Hospital of Kendal (Siti Nur Hidayati 2016)	The sampling technique was accidental sampling, the samples were 30 postpartum mothers Sectio Caesarea	Fisher's Exact Test showed that there was a significant relationship between dietary habits and sectio caesarea post op wound healing (p value=0.023). Nutritious food, appropriate portions and not dietary abstinence will make the mothers healthy and fresh and will speed up the post-surgery wound healing period
The Relationship of Protein Intake and Breast Milk Adequacy of the Patients of Post Sectio Caesaria Surgery at Pringsewu Regional Hospital (Yanti 2019)	Analytical method with a cross sectional approach, with a sample of 45 respondents meeting the inclusion criteria	The instruments in this study used Food Frequency Questional (FFQ) sheets and checklist sheets. This study recommends families not to do dietary abstinence, especially protein derived from animal sources for post <i>sectio caesarea</i> surgery mothers
The Influence of Postpartum Maternal Nutritional Status to Post Partum Wound Healing of Sectio Caesaria (Maesaroh, 2019)	This type of research is descriptive analytical with a cross sectional approach, a sample used by 25 respondents post sectio caesarea mothers.	There is a significant effect of postpartum maternal nutritional status to wound healing after <i>Sectio Caesaria</i> at Permata Bunda Hospital of Ciamis in 2018; p-value of 0.038
The Relationship between the Knowledge of Postpartum Mothers on Balanced Nutrition Food and Perineal Wound Healing (Jaelani, 2017)	Observational analytics with a cross-sectional approach. The sample number is 60 people.	There is a significant relationship between postpartum mother's knowledge on balanced nutrition and perineal wound healing; p-value <0.05 and p-value=0.038.
The Relationship between Mother's Knowledge, Nutritional Patterns and Maternal Allergy History and the Wound of Sectio Cesarean Surgery at Siloam Hospital Purwakarta (Dewi Kurniati 2017)	Analytical research with case control design, with a sample of 31 maternal operative Sectio Caesarea	There is a significant relationship between maternal nutritional intake and wound healing
The Relationship between Nutritional Status and Wound Healing Process Post Sectio Caesarea at Obstetrics Clinic of Jombang Regional Hospital (Roselita, 2017)	Retrospective Correlation Analytics, with a sample of 35 people	Good nutritional status that pays attention to the wound healing process of post <i>sectio caesarea</i> while still paying attention to nutritional status
The Influence of Nutritional Status to the Duration of Wound Healing Process Post Sectio Caesarea at Dahlia Room of dr. R. Soedjati Regional Hospital of Purwodadi (Sahara 2017)	This type of research was an observational study, with 35 respondents to post Sectio Caesarea mothers.	Linear Regression test results obtained a significance value of p = 0.000 thus p < 0.05. There is an influence of nutritional status to the duration of wound healing process of Sectio Caesarea at Dahlia Room of dr. R. Soedjati Hospital of Purwodadi
Factors Affecting Wound Healing of Post Sectio Caesarea Surgery in Pnc Room of the Regional Hospital of Labuang Baji	Descriptive method of analytics, based on purposive sampling of 38 post sectio caesarea maternal respondents	Pearson Chi-Square SPSS version 16.0, obtained the value p = 0.001 for nutrition, the value p = 0.001 for mobilization, the value p = 0.004 with for the cleanliness of the wound. There is a relationship between nutrition, mobilization and wound

**THE 4th INTERNATIONAL CONFERENCE ON HEALTH POLYTECHNICS OF SURABAYA
(ICOHPS)**

1st International Conference of Midwifery (ICoMid)

		hygiene of the respondents and the wound healing after Sectio Caesarea.
The Effect of Steamed Egg White Consumption to the Post Sectio Caesarea Healing (Lia Dharmayanti 2019)	Pre-experiment design with static type group comparasion. With a sample of 20 respondents	Analyze the data using the chi square test. The results of the data analysis found that there was an influence of consumption of steamed egg whites on the healing of post Sectio Caesarea stitch wounds in the Maternity Home of Pasuruan City' Mother Bertha. Consumption of steamed egg whites is effective in shortening wound healing time after Sectio Caesarea.
The Effectiveness of Nutrient Intake, High Protein for Wound Healing Process of Post Sectio Caesarea at dr. Zaenal Abidin Regional Hospital of Banda Aceh (Darmawati 2019)	Experimental with post test intervention design. With a sample of 30 respondents post Mother Sectio Caesarea.	By using the spearman rank correlation statistical test with a significant standard of 0.05 with a computerized SPSS program. There was a significant difference of the wound healing after <i>sectio caesarea</i> between the intervention group (46.7%) and the control group (6.7%) (0.000)

DISCUSSION

From some of the literature above concluded that there is a relationship of abstinence to the length of wound healing Sectio Caesarea. From the results of the study there are 10 journals related to the research topic, namely the relationship of abstinence from eating to the length of wound healing Sectio Caesarea which was reviewed there were differences in methods and samples. And Mother post partum is expected to further improve the quality of knowledge about post Sectio Caesarea wound healing. It is recommended for health workers to be able to provide understanding or explanation to the mother post surgery Sectio Caesarea to meet their nutritional needs because it will affect the healing process of sectio caesarea wounds.

Complications that can occur shortly after Sectio Caesarea surgery are infections that are widely referred to as postoperative morbidity. Approximately 90% of postoperative morbidity is caused by infection (infection of the uterus or endometritis, urinating tools, and surgical wounds). This contributes to an increase in maternal mortality (AKI). (Siti Nur Hidayati 2016) Women have Sectio Caesarea surgery will have a risk (5%-20%) of vaginal health-related infections, and the occurrence of complications of infection after undergoing Sectio Caesarea surgery is substantial and important, because it causes maternal morbidity. (Wulan Anggraeni 2019)

Normal wound healing requires proper nutrition, as the physiological process of wound healing depends on the availability of proteins, vitamins (especially vitamins A and C) and minerals. Collagen is a protein formed from amino acids that fibroblasts obtain from the proteins eaten. Vitamin C is needed to synthesize collagen. Vitamin A can reduce the negative effects of steroids on wound healing. Zinc trace elements are necessary for epithelial formation, collagen synthesis (zinc) and uniting collagen fibers. (Roselita 2017)

Post-surgery body needs proper nutrition for the wound healing process. Good nutrition for the wound healing process is fat, protein, carbohydrates, vitamin A, zinc and vitamin C. The nutrition will play an important role in the wound healing process, wound healing duration, wound tissue strengthening and to prevent the infection. (Hartini 2015) Wound healing normally requires proper nutrition because the physiological process of wound healing depends on the availability of protein, vitamins (especially vitamins A and C) and minerals.

Nutrition is the main need that must be fulfilled and it must pay special attention, especially for postpartum mothers who remain having perineal wounds and *sectio cesarea* wounds. The main to be considered in nutrition is not only related to the amount of food consumed but also the nutrients contained in it. The nutrition is possibly provided through the food eaten, frequency, and feeding schedule. Substances that contain various nutrients needed by the body are usually contained in fish, eggs, meat and so on. Breastfeeding mothers usually need more nutrition because apart from being used for the healing process they are also to produce breast milk for their babies. (Tetti Solehati 2020)

Adult women need calory 2200 kcal while breastfeeding mothers need an additional 700 kcal for the first 6 months after giving birth (Tetti Solehati 2020) Post *sectio caesarea* mothers having dietary abstinence will experience

nutritional decrease so that the food consumed should contain protein, lots of fluids, vegetables and fruits. Mothers whose nutrition is sufficient but remain following dietary abstinence custom as taught by their parents will have less good wound healing process meaning the wound healing process will be slower. Meanwhile, post *sectio caesarea* mothers whose nutrition is quite good the wound healing process will be faster (Siti Nur Hidayati 2016). Dietary abstinence itself is an individual behavior not to consume certain types of food because there are cultural prohibitions that have been passed down from generation to generation. Certain groups of society usually have myths about certain foods which are prohibited in relation to breastfeeding. There is still an assumption or belief that if a mother does not abstain from certain food she will have festering wounds beside the wounds will become wet and itchy. The breast milk will even smell fishy. Although this belief is detrimental to society it remains. (Yanti 2019) Dietary abstinence is influenced by several factors, including the mother's lack of knowledge about the benefits of nutrition and cultural prohibitions to consume certain foods that are still passed down from generation to generation.

CONCLUSION

The balanced nutritional status of postpartum mothers greatly influences the wound healing process. Nutritional status is the state of the body as a result of food consumption and nutritional intake. This nutrient serves to help the metabolic process, maintenance and creation of new tissue. (Jaelani 2017) Nutritional status is also a picture of the balance between the body's need for nutrients in order to maintain the normal body functions and to produce energy beside to get other nutrients intake. Post-surgery the body needs nutrients to help maintain health and wound healing and the nutrients will be obtained from foods containing protein, carbohydrates and fats. Nutrients can be obtained from various food sources both animal and vegetable.

REFERENCES

- Darmawati, Cut Husna, Aida Fitri, Dahrul Munira⁵, And Igraduate. 2019. "The Effectiveness Of High Protein Nutrient To The." *Jurnal Medika Veterinaria* 13(2): 192–99.
- Deni Imam. 2019. "Pengaruh Pendidikan Kesehatan Tentang Nutrisi Melalui Media Visual Interaktif Terhadap Budaya Pantang Makan (Tarak) Pada Pasien Diabetik Foot Ulcer Di Kabupaten Bojonegoro." 17(1): 40–49.
- Desi Ratna Sari. 2019. "Faktor Yang Memengaruhi Keputusan Sectio Faktor Yang Memengaruhi Keputusan Caesarea (Sc) Pada Ibu Bersalin Di Rsu. Mitra (Sc) Pada Ibu Bersalin Di Rsu. Mitra Medika Tanjung Mulia Tahun 2019." : 1–7.
- Dewi Kurniati. 2017. "Hubungan Pengetahuan Ibu, Pola Nutrisi Dan Riwayat Alergi Ibu Terhadap Penyembuhan Luka Operasi Sectio Cesarea Di Rs Siloam Purwakarta." 3: 225–32.
- Hartini, Putri Sri, Nurdiana Dewi, And Lisda Hayatie. 2015. "Esktrak Ikan Haruan (Channa Striata) Menurunkan Jumlah Makrofag Pada Fase Inflamasi Proses Penyembuhan Luka." *Jurnal Dentofasial* 14(1): 6–10.
- Jaelani, Abdul Khodir. 2017. "Hubungan Pengetahuan Ibu Nifas Tentang Makanan Gizi Seimbang Dengan Penyembuhan Luka Perineum." *Journal Endurance* 2(February).
- Lia Dharmayanti. 2019. "Pengaruh Konsumsi Putih Telur Kukus Terhadap Penyembuhan Luka Jahitan Post Sectio Caesarea." *Jurnal Keperawatan Dan Kebidanan*: 6–10.
- Maesaroh. 2019. "Jurnal Kesehatan Pertiwi Pengaruh Status Gizi Ibu Nifas Terhadap Penyembuhan Luka Post Partum Operasi Sectio Caesaria." *Jurnal Kesehatan Pertiwi Politeknik Kesehatan Bhakti Pertiwi Husada I*: 1–7.
- Roselita, Enggar. 2017. "Hubungan Status Nutrisi Dengan Proses Penyembuhan Luka Pasca Sectio Caesarea Di Poli Kandungan Rsud Jombang." : 37–44.
- Sahara, Rizki. 2017. "Pengaruh Status Nutrisi Terhadap Lama Proses Penyembuhan Luka Post Operasi Sectio Caesarea Di Ruang Dahlia Rsud Dr. R. Soedjati Purwodadi." 11.
- Siti Nur Hidayati, Yuni Puji Widyastuti, Sri Rejeki. 2016. "Hubungan Pola Makan Dengan Penyembuhan Luka Post Op Sectio Caesarea Di Rsud Dr. Soewondo Kendal." : 240–44.
- Tetti Solehati, Cecilia Destiani Ekautami Putri, Pitria Sri Pujhiyani. 2020. "Pengaruh Pendidikan Kesehatan Nutrisi Pada Tingkat Pengetahuan Ibu Post Partum." *Jurnalkesehatanmasyarakat* 7(1).
- Viandika, Nurya, And Ratih Mega Septiasari. 2020. "Pengaruh Continuity Of Care Terhadap Angka Kejadian Sectio Cessarea." 3(1): 1–8.
- Wulan Anggraeni. 2019. "Gambaran Penyembuhan Luka Post Operasi Sectio Caesarea Dengan Pemberian Antibiotik Ceftizoxime Sebagai Profilaksis Dosis Tunggal Di Rumah Sakit Singaparna Medika Citrautama Kabupaten Tasikmalayatahun 2018." *Jurnal Bidkesmas* 02.
- Yanti, Desi Ari Madi. 2019. "Hubungan Asupan Protein Dengan Kecukupan Asi." *Jurnal Kesehatan Panca Bhakti Lampung* Vii(1): 8–16.
- Yuli Suryanti. 2020. "The Effect Of Snakehead Fish (Channa Striata) Extract On Blood Leukocyte Number And Cesarean Section Wound Healing." 443(Iset 2019): 596–98.