

THE EFFECT OF EARLY MOBILIZATION HEALTH EDUCATION ON THE LEVEL OF POSTPARTUM MOTHERS'S KNOWLEDGE POST SECTIO CAESAREA

Maimunah¹, Retno Wulandari², Desy Widyastutik³

¹ Unit Medis Rumah Sakit Umum Islam Kustati Surakarta, Indonesia

^{2,3} Fakultas Ilmu Kesehatan Universitas Kusuma Husada Surakarta, Indonesia

Article Info	ABSTRACT
Corresponding Author : Maimunah Medical Unit of Kustati Islamic General Hospital Surakarta Maimunah15032@gmail.com	Background: Sectio caesarea is birth fetus, placenta and membrane amniotic fluid through the incision made on the stomach wall and uterus. The recovery process carried out after section caesarea operation is early mobilization. One of the factors that influence early mobilization is knowledge. Process recovery carried out after operation <i>sectio caesarea</i> that is early mobilization. One wrong factor affecting early mobilization is knowledge. Knowledge about early mobilization will increase the motivation of mothers post <i>sectio caesarea</i> to carry out early mobilization. Health education is a communication activity that aims to improve public health and prevent or reduce health problems. This study aims to prove the effect of health education on increasing postpartum mothers' knowledge about early mobilization post cesarean section. Methods: This research method is a pre-experimental research with a design study one group pre test-post test design. Sample a total of 44 respondents. The techniques used in this analysis are univariate and bivariate. Normality test using the shapiro wilk method. Results are based on the results of the Wilcoxon test analysis. Results: There is an influence of early mobilization health education about on the level of postpartum mothers's knowledge post sectio caesarean with a p-value = 0.000 <0.05. Conclusion: This study successfully proved that health education has an influence on increasing the knowledge of postpartum mothers about early mobilization after a caesarean section.

Keywords : Early mobilization; Education health; Knowledge; Post *sectio caesarea*; Postpartum mothers

INTRODUCTION

Sectio caesarea delivery is an artificial delivery in which the fetus is born through an incision in the front wall of the abdomen and the uterine wall on condition that the uterus is intact and the fetus weighs more than 500 grams (Al Farizi et al., 2022).

According to the World Health Organization (WHO), in developing countries the incidence of caesarean sections is increasing and has determined that the *sectio caesarea* delivery indicator in each country is between 10% -15%. If the *sectio caesarea* delivery rate exceeds the standard caesarean section operation limit, this can increase the risk of death and disability in mothers and

children. Referring to statistics from holds 2019, it shows that the number of caesarean sections was 85 million, while in 2020 it showed that *sections caesarea* were 68 million, and data in 2021 stated that the number of caesarean sections was 373 million. The number of caesarean deliveries occurs mostly in America at 39.3%, in Europe at 25.7%, and in Asia at 23.1% (World Health Organization, 2021). According to the 2018 Basic Health Research (Risesdas) data, it was proven that the rate of *sectio caesarea* deliveries in Indonesia was 78,736 cases (17.6%) of all deliveries in health facilities. Several provinces showed a high rate of caesarean section deliveries with the highest

provinces being DKI Jakarta (27.2%), Riau Islands (24.7%) and West

Sumatra (23.1%) (Kemenkes RI, 2019). Data from the Central Java health profile in 2019 showed the incidence of *sectio caesarea* births was 34,000 out of 170,000 deliveries or around 20% of all deliveries (Dinas Kesehatan Provinsi Jawa Tengah, 2020).

Recovery processes that can be carried out after surgery *sectio caesarea* (SC) is early mobilization, carried out immediately after surgery starting from getting up, sitting on the side of the bed, getting out of bed, stand up and start walking. Post *sectio caesarea* mothers experience limited physical mobility due to surgical scars and side effects from anesthesia (Herlinadiyaningsih et al., 2024). The aim of mobilization is to prevent post operative complications, increase functional capacity and reduce the length of stay for patients undergoing surgery (Zang, Y., Ma, L., Tang, Z., & Wang, 2023). Early mobilization can be beneficial for mothers who undergo *sectio caesarea* because it can affect the mother physically, affect the cardiovascular system by increasing cardiac output, strengthening the heart muscle, ensuring smooth circulation, improving regulation of the body's metabolism, restoring physical work function and maintaining vital signs within normal limits, reducing the risk of infection not occurring, preventing stiffness in the digestive system, increasing stomach mobility, stimulating peristalsis and increasing stomach muscle tolerance (Herman et al., 2019).

Factors that influence mobilization include lifestyle influenced by education and knowledge, disease and injury processes, culture, energy levels, age and developmental status. Postpartum mothers with *sectio caesarea* often complain of pain in the surgical area so that mothers are reluctant to do early mobilization (Novitayanti, 2023). Knowledge about early mobilization will encourage post- *sectio caesarea* mothers to carry out early mobilization properly. Lack of knowledge and about the importance of early mobilization after surgery is one of the factors that hinders the implementation of early

mobilization. Encouraging early mobilization after delivery with the *sectio caesarea* method aims to reduce the risk of thromboembolism (Sari & Kasjono, 2024). In this regard, efforts need to be made to improve the knowledge of post *sectio caesarea* mothers about early mobilization and maternal behavior in carrying out early mobilization after *sectio caesarea*. The approach to improving knowledge and implementation of early mobilization after *sectio caesarea* surgery is through health education. Health education is a communication activity that aims to improve health positively and prevent or reduce health problems in individuals and groups. This approach is carried out by changing beliefs, attitudes, and behavior through appropriate information and interaction (Riyanti, Neni; Devita, 2024).

Based on a preliminary study conducted by researchers in October 2024 on 10 post section caesarean postpartum mothers, data was obtained that (40%) had good knowledge about early mobilization, (30%) had sufficient knowledge about early mobilization and (30%) had insufficient knowledge about early mobilization.

This indicates that the average post *sectio caesarea* patient at RSUI Kustati Surakarta does not perform early mobilization because the mother's ignorance about early mobilization is caused by the absence of health workers who provide routine health education, only in the form of recommendations to perform early mobilization. The way to overcome this problem is by conducting health education about early mobilization post *sectio caesarea*, it is hoped that after the patient is given health education, the patient can change their understanding to perform early mobilization post *sectio caesarea*.

Based on this phenomenon and considering the importance of providing health education which greatly influences changes in patient knowledge regarding early mobilization after *sectio caesarea* surgery, the researcher is interested in finding out more about the influence of health education about early mobilization on the level of knowledge

in post caesarean postpartum mothers in the postpartum room of RSUI Kustati Surakarta.

METHOD

The type of research is quantitative research, using a pre-experimental design of one group pre test post test design. The population in this study was 78 subjects. The technique used in this study was purposive sampling and the number of samples in this study was 44 respondents with inclusion and exclusion criteria. The inclusion criteria are post section caesarean patients on day 1, willing to be respondents, patients in a conscious state (Composmentis), patients over 15 years of age. The study was conducted at RSUI Kustati Surakarta in October - December 2024. The variables in this study are independent variables of health education with videos while the dependent variable is the level of knowledge. Data analysis in this study includes univariate and bivariate analysis. Data analysis uses non parametric tests using the Wilcoxon test. Data collection techniques are with secondary data and primary data. The research instrument used a questionnaire sheet to determine the level of knowledge and post *sectio caesarea* postpartum mothers about early mobilization. This study has gone through ethical testing with ethical clearance number: 2488 / UKH.L.02 / EC / I / 2025.

RESULTS

a. Respondent characteristics

This study covers age, occupation and education of post *sectio caesarea* postpartum mothers.

Table 1 Respondent Characteristics

Category	Frequency	%
Age		
20-25 years	5	11.4
26-30 years	15	34
31-35 years	18	41
36-40 years	6	13.6
Total	44	100
Work		
laborer	2	4.5
housewife	15	34.1
private sector employee	21	47.7
civil servant	1	2.3
self-employed	5	11.4
Total	44	100
Education		
bachelor degree	15	34.1
senior high	27	61.4

school junior school	high	2	4.5
Total		44	100

Source: (primary data, 2025)

Based on table 1, it can be seen that the characteristics of respondents based on age show that the age of 20-25 years is 5 respondents (11.4%). The age of 26-30 years is 15 respondents (34%). The age of 31-35 years is 18 respondents (41%). The age of 36-40 years is 6 respondents (13.6%). The total respondents in this study were 44 respondents (100%).

Based on table 1, it shows that the characteristics of respondents based on their occupation are post *sectio caesarea* postpartum mothers who work as laborers, there are 2 respondents (4.5%), housewives 15 respondents (34.1%), private employees 21 respondents (47.7%), civil servants 1 respondent (2.3%) and self-employed 5 respondents (11.4%). The total respondents in this study were 44 respondents (100%). Based on table 1, it shows that the characteristics of respondents based on education are post *sectio caesarea* postpartum mothers with a bachelor's degree as many as 15 respondents (34.1%). High school education as many as 27 respondents (61.4%). Junior high school education as many as 2 respondents (4.5%). The total respondents in this study were 44 respondents (100%).

b. Frequency Distribution of Respondents' Knowledge Before and After Health Education

Table 2 Frequency Distribution of Knowledge

Category	Pretest		Posttest	
	N	(%)	N	(%)
Good	14	31.8	44	100
Enough	30	68.2	0	0
Not enough	0	0	0	0
Total	44	100	44	100

Source: (primary data, 2025)

Based on table 2 shows that the results before being given health education

Source: (primary data, 2025)

about early mobilization, those who had good knowledge (76% - 100%) were 14 respondents (31.8%), those who had sufficient knowledge (56% - 75%) were 30 respondents (68.2%), those who had insufficient knowledge (<56%) were 0 respondents (0%). After being given health education about early mobilization, those who had good knowledge (76% - 100%) were 44 respondents (100%), those who had sufficient knowledge (56% - 75%) were 0 respondents (0%), those who had insufficient knowledge (<56%) were 0 respondents (0%).

c. Analysis The Influence of Health Education About Early Mobilization on the Level of Knowledge in Postpartum Mothers After Caesarean Section

Table 3 Normality test before and after early mobilization health education was given

Variables	Shapiro Wilk	Df	Sig.
Pre-test	0.868	44	0.000
Post test	0.440	44	0.000

Source: (primary data, 2025)

Table 3 shows that the results of the normality test using SPSS with the Shapiro Wilk test obtained a significance value of <0.05, so it can be stated that the data is not normally distributed. So that data analysis uses non-parametric tests using the Wilcoxon test. This study aims to determine the effect of health education on early mobility on the level of knowledge in postpartum mothers after *sectio caesarea*.

The results of the normality test using SPSS with the Shapiro Wilk test obtained data that was not normally distributed so that data analysis used a non-parametric test using the Wilcoxon test.

Table 4 Results of the Wilcoxon test before and after early mobilization health education was provided.

Variables	Average	Z score	p-value
Pre-test	22.00	-5,762	0.000
Post test	946.00		

This study used the Wilcoxon test. Table 4 shows that the Wilcoxon test results obtained a p value of .000. If the p-value <0.05 then the Null Hypothesis (Ho) is rejected and the Alternative Hypothesis (Ha) is accepted. This shows that there is an effect of health education about early mobility on the level of knowledge in post-section caesarean postpartum mothers at RSUI Kustati Surakarta.

DISCUSSION

The characteristics of respondents based on age showed that 5 respondents were aged 20-25 years (11.4%). Ages 26-30 years were 15 respondents (34%). Ages 31-35 years were 18 respondents (41%). Ages 36-40 years were 6 respondents (13.6%). Previous theory stated the older you get, the more experience and knowledge you will gain to increase mental and intellectual maturity. A person's increasingly mature age affects their ability to think and receive information better than when they were young (S. Notoatmodjo, 2020). The job characteristics of the respondents showed that 2 respondents (4.5%) worked as laborers, 15 respondents were housewives (34.1%), 21 respondents were private employees (47.7%), 1 respondent was a civil servant (2.3%) and 5 respondents were self-employed (11.4%). The work environment can enable a person to gain experience and knowledge, both directly and indirectly. In meeting primary or secondary needs, families with good economic status are more easily met than families with low economic status. So it can be concluded that economics can influence a person's knowledge about various things (Mubarak, 2015; Soekidjo. Notoatmodjo, 2017). Characteristics of respondents based on education shows that as many as 44 respondents had a Bachelor's degree in post-caesarean section mothers, 15 respondents (34.1%). High school education was 27 respondents (61.4%). 2 respondents (4.5%) had junior high school education. The total number of respondents in this study was 44

respondents (100%). Education influences the level of knowledge. Education is not only seen as an effort to provide information and develop skills, but is expanded to include efforts to realize individual desires, needs and abilities in increasing knowledge (Simarmata, J., Romindo;, Putra, S. H.; Siregar, A. P. M. N. H.; Chamidah, D. P. Y. A. D.; Purba, 2021). This study showed that the results before being given health education about early mobilization had good knowledge (76% - 100%) as many as 14 respondents (31.8%), enough knowledge (56% - 75%) as many as 30 respondents (68.2%), less knowledge (<56%) as many as 0 respondents (0%). After being given health education about early mobilization, 44 respondents (76% - 100%) had good knowledge (76% - 100%), 0 respondents had sufficient knowledge (56% - 75%), 0 respondents (0%) had little knowledge (<56%). A person's knowledge can be interpreted on a qualitative scale, namely good knowledge (76% - 100%), sufficient knowledge (56% - 75%), poor knowledge (< 56%) (Daiyana et al., 2024). Knowledge is a result of human knowledge of the combination or collaboration between a subject who knows and an object that is known (Suriasumant RI, 2017). In this regard, efforts need to be made to increase post-caesarean mothers knowledge about early mobilization and maternal behavior in carrying out early mobilization after caesarean section. The approach to increasing knowledge and implementation of early mobilization after caesarean section surgery is through health education. health education aims to change people's attitudes and behavior so that they can participate actively in efforts to achieve optimal health (Harsismanto, J, & Suhendar, 2019).). Knowledge about early mobilization will encourage mothers after caesarean section to carry out early mobilization well (Sari & Kasjono, 2024; Sutrisno; Herawati, Vitri Dyah; Prapnawati, n.d.). Lack of knowledge and the importance of early post-operative mobilization is one of the factors that hinders the implementation of early mobilization. Previous studies stated that health education is defined as a process that includes intellectual, psychological and

social dimensions and activities that are needed to improve an individual's ability to make conscious decisions and that affect the welfare of self, family and society (Induniasih; Ratna, 2021). In order to make it easier for individuals, families and groups to make decisions about health practices, a health education process is carried out which is a combination of learning experiences aimed at influencing, enabling and strengthening voluntary behavior that supports the health of individuals, groups or communities (Pakpahan et al., 2020). Based on the research results, there is an influence of health education about early mobility on the level of knowledge of post-caesarean section postpartum mothers. Researchers recommend health education about early mobilization on the level of knowledge of postpartum mothers post caesarean section.

CONCLUSION

Health workers can choose health education about early mobility as one way to improve the knowledge of postpartum mothers after cesarean section. So it is hoped that postpartum mothers after cesarean section will dare to do early mobilization if they have good knowledge about the benefits of early mobilization.

ACKNOWLEDGEMENTS

Gratitude to Allah SWT who has given His blessing in completing the research. The author's gratitude goes to the President Director of RSUI Kustati Surakarta who has given permission to conduct the research. Thanks to parents, husband, children and friends for their support and inspiration, as well as all parties who have helped in this research.

REFERENCES

- Al Farizi, S., Ernawati, E., Ernawaty, E. W., & author Sofi Al Farizi Midwifery Study Program, C. (2022). *Cesarean delivery Characteristics during JKN Implementation Karakteristik persalinan sesar selama Implementasi JKN*. 10(3).
- Daiyana, I., Hermansyah, H., Raharjo, S. B., & Hanum, L. (2024). *Early Mobilization*

- and Wound Healing Process Post Abdominal Surgery in the Inflammatory Phase Mobilisasi Dini dan Proses Penyembuhan Luka Post Operasi Abdominal Pada Fase Inflamasi.* 3(May), 44–52.
- Dinas Kesehatan Provinsi Jawa Tengah. (2020). *Profil Jateng tahun 2019.pdf*. <https://dinkesjatengprov.go.id/v2018/storage/2020/09/Profil-Jateng-tahun-2019.pdf>
- Harsismanto, J., & Suhendar, S. (2019). Pengaruh media edukasi video dan flipchart terhadap motivasi dan sikap orang tua dalam merawat balita penderita pneumonia. *Jurnal Keperawatan Silampari*, 2, 1–17.
- Herlinadiyaningsih, H., Arisani, G., & Lucin, Y. (2024). Efektivitas edukasi dengan media video terhadap perilaku mobilisasi dini pada ibu nifas post sectio caesaria. *Jurnal Kebidanan Indonesia*, 15(2), 110. <https://doi.org/10.36419/jki.v15i2.1096>
- Herman, A., Santoso, B., & Yunitasari, E. (2019). *The Effect of Early Mobilization on Intestinal Peristaltics in Patients after a Cesarean Section in Kendari City Hospital*. 14(3), 10–13.
- Induniasih; Ratna, W. (2021). *Promosi Kesehatan Pendidikan Kesehatan dalam Keperawatan*. Pustaka Baru Press.
- Kemendes RI. (2019). Laporan Nasional Riskesdas 2018. Kementerian Kesehatan RI, 1(1), 1. <https://www.kemkes.go.id/article/view/19093000001/penyakit-jantung-penyebab-kematian-terbanyak-ke-2-di-indonesia.html>
- Mubarak, et al. (2015). *Buku Ajar Ilmu Keperawatan Dasar*. Salemba Medika.
- Notoatmodjo, S. (2020). *Ilmu Perilaku Kesehatan*. Rineka Cipta.
- Notoatmodjo, Soekidjo. (2017). *Pendidikan dan Perilaku Kesehatan*. Rineka Cipta.
- Novitayanti, E. (2023). PENGARUH TEKNIK RELAKSASI NAFAS DALAM UNTUK MENURUNKAN NYERI PADA PASIEN GASTRITIS. *Jurnal Penelitian Keperawatan*, 9(1), 24–29.
- Pakpahan, M., Hutapea, D. A., Siregar, D., Frisca, S., & Sitanggang, Y. F. (2020). *Keperawatan Komunitas* (A. Karim (ed.)). Yayasan Kita Menulis.
- Riyanti, Neni; Devita, R. (2024). MOBILISASI DINI POST SECTIO CAESARIA BERDASARKAN PENGETAHUAN DAN SIKAP IBU. *Jurnal 'Aisyiyah Medika*, 9(1), 57–67.
- Sari, Y., & Kasjono, H. S. (2024). Pengaruh pendidikan kesehatan melalui video terhadap pengetahuan dan praktik mobilisasi dini pada pasien post sectio caesarea. *Jurnal Gizi Dan Kesehatan*, 5(2)(3), 344–351.
- Simarmata, J., Romindo;, Putra, S. H.; Siregar, A. P. M. N. H.; Chamidah, D. P. Y. A. D.; Purba, B. . J. (2021). *Teknologi Informasi dan Sistem Informasi Manajemen*. Yayasan Kita Menulis.
- Suriasumant RI, J. S. (2017). *Ilmu Dalam Perspektif*. Yayasan Obor Indonesia.
- Sutrisno; Herawati, Vitri Dyah; Prapnawati, H. U. (n.d.). DINI PADA PASIEN PASKA OPERASI SESAR Program Studi Ilmu Keperawatan Universitas Sahid Surakarta Rumah Sakit Muhammadiyah Selogiri , Wonogiri Korespondensi penulis roshansutrisno@gmail.com Abstrak Persalinan merupakan proses pengeluaran hasil konsepsi yait. 14(2), 19–26.
- World Health Organization. (2021). *Caesarean section rates continue to rise*,

amid growing inequalities in access.
<https://www.who.int/news/item/16-06-2021-caesarean-section-rates-continue-to-rise-amid-growing-inequalities-in-access>

Zang, Y., Ma, L., Tang, Z., & Wang, Y. (2023). Enhanced recovery after surgery (ERAS) protocol reduces length of stay and improves postoperative outcomes: A meta-analysis. *Journal of Clinical Anesthesia*, 86.