



## Original Research

# Nurses' Perspective On Postpartum Education Needs In A Referral Hospital

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### ABSTRACT

**Background:** *The study about nurses' perception of postpartum complication education is limited. The previous studies in Indonesia focus on providing education as a direct intervention to patients. This study aimed to determine the educational needs of postpartum mothers from the nurses' point of view.*

**Methods:** *This study was a qualitative study conducted from April to July 2021 in a referral hospital in Central Java, Indonesia. Data were collected through focus group discussions, in-depth interviews, and observations. The participant of this study were seven nurses in the postpartum ward. The collected data were analyzed using a tabulated theme conducted through the thematic analysis approach.*

**Results:** *All the participants were females. Three major themes were generated in this study: reasons for the need for continuous postpartum education, obstacles to implementing postpartum education, and expectations of future follow-up care. The subthemes for the first theme are patients readmitted to the hospital, excessive educational topics, short admission time, and high-risk postpartum mothers. While the subthemes for the second theme are time constraints, limited educational media, and environmental and cultural influences, and the subthemes for the third theme are continuous monitoring and accessibility of educational media.*

**Conclusion:** *The study has provided new insights regarding the continuity of postpartum education and the obstacles nurses face and has implications for developing a system of continuity of care for postpartum patients, especially for high-risk patients.*

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## INTRODUCTION

Nurses as educators play an essential role in the mortality of maternal. Unfortunately, Indonesia's Maternal Mortality Rate (MMR) is still high. MMR, (2017) Indonesia had 177 deaths per 100,000 live births, far from the Sustainable Development Goals (SDGs) target of fewer than 70 deaths per 100,000 live births (*Maternal Mortality*

in 2000-2017, 2019). In Central Java, although the MMR figure is lower than the national figure, the maternal mortality rate was still 76.9 in 2020.

The most common causes of maternal death in Central Java are hypertension during pregnancy (29.6%) and bleeding (24.5%). Most of these maternal deaths occurred during the postpartum or puerperium (64.18%). Meanwhile, in Banyumas Regency, although the MMR is far below the national and provincial figures and the SDG target (38 deaths per 100,000 live births), most deaths also occur during the puerperium period (Pemerintah Kabupaten Banyumas Dinas Kesehatan Banyumas, 2020).

Maternal deaths during postpartum may occur due to the lack of continuity of care. The continuity of maternal health services in Indonesia is still low (46%) as pregnant women tend to pay attention only to prenatal care, not postpartum care. According to the Directorate General of Public Health Direktorat Jenderal Kesehatan Masyarakat, (2019) the high mortality during the puerperium period indicates the quality of postpartum care for mothers and newborns in Indonesia is still low.

The continuity of care conducted by nurses or other health workers for patients treated in hospitals is essential. Research conducted in 2004 showed that patients who had home visits by a doctor who treated them at the hospital had better outcomes than patients visited by other doctors (van Walraven et al., 2004). Data of obstetric and gynecological outpatient visits at a referral hospital in Central Java reported 7 cases of pregnant women at high risk for complications during childbirth and puerperium.

Most of the cases were hypertension in pregnancy. However, about 5.7% of cases of preeclampsia or eclampsia may present de novo in the postpartum period (up to six weeks), even without hypertension in pregnancy (Powles & Gandhi, 2017). Patel et al., (2020) found that hypertension, wound complications, and endometritis accounted for the top three admission diagnoses. Meanwhile, other studies found that puerperal sepsis, preeclampsia, eclampsia, and hemorrhage were the major postpartum complications requiring admission to the hospital Shrestha et al., (2020), and these postpartum complications were not the primary focus of the education given to the patient in the hospital stay (Suplee et al., 2017).

Nurses as educators are essential to reducing the morbidity of postpartum mothers due to complications. The previous studies investigated nurses' and other health workers' education on postpartum complications. A correlation between postpartum education and mortality was reported by 95% of nurses, but only 72% agreed it was their responsibility to provide postpartum complications education (Suplee et al., 2016). About 93.45% of midwives decided that it is their responsibility to teach all patients about warning signs of complications, but they did not always teach patients about complications (Adams & Sladek, 2022).

Studies on nurses' perceptions of postpartum complications education in Indonesia are limited. Most research focuses on providing education as a direct intervention to patients Ekawati et al., (2019); Mayasari & Jayanti, (2019); Sugiarti et al., (2020), not on nurses' perceptions. Therefore, this study aimed to determine the educational needs of postpartum mothers from the nurses' point of view, especially for high-risk postpartum mothers.

## **MATERIALS AND METHOD**

This qualitative study followed the guidelines stated in the Consolidated Criteria for Reporting Qualitative Research (COREQ) and was conducted with content analysis.

The study was conducted from April to July 2021 in a general referral hospital in Central Java, Indonesia.

A purposive method was applied for sample selection. The key informants in this study were nurses in a postpartum ward. The inclusion criteria of this study were nurses who are directly involved in taking care of patients, have been working as a nurse in the postpartum ward for more than three months, were not on leave, were not on duty during the retrieval of data, and have agreed to participate in this study.

The exclusion criteria of this study were nurses in structural positions. According to Paramita & Kristiana, (2013), the number of participants in focus group discussions is 7-10 (12 in maximum). Eleven nurses met the requirements, but at the time of data retrieval, four nurses were absent without notifications, so seven nurses participated in this study.

Data was collected through a focus group discussion (FGDs), in-depth interviews, observations, and field notes. The FGD was carried out by the principal researcher with the nurses, while research members conducted observations of the nurses and patients. Principal researcher and research members are experienced in conducting qualitative research for 3-10 years—a single offline focus group discussion with seven nurses in a hospital meeting room for 70 minutes.

To obtain richer data, in-depth interviews with two participants who previously participated in the FGD were conducted for an additional 30 minutes. The FGD session began with greetings, introductions, and filling in participant characteristics data. Then, the core discussion started by asking general questions according to the guidelines and specific questions according to the participants' answers.

The researchers recorded the conversation and noted the nurses' answers for unclear sections during the discussion. Data retrieval was stopped when no new information could be found. After completing the data collection section, a verbatim transcription was directly conducted, and the data was analyzed.

One week before data collection, prospective informants were given an invitation letter to attend an interview. The invitation letter contains information about researchers, objectives, benefits, and risks of the study, freedom to participate, procedures and duration, confidentiality, participation, time, and place of the interview. An informed consent form was attached, and an invitation letter was to be signed if they participated. The principal researcher made a semi-structured interview guide based on need-based postpartum education and discussed it with the team; corrections were made based on the discussion. The question was pilot tested on two nurses who were not included in the analysis.

Data analysis using a tabulated theme was conducted through the thematic analysis approach according to Kiger and Varpio (Kiger & Varpio, 2020). According to Kiger and Varpio, there are six steps framework for conducting thematic analysis: (1) familiarizing with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, (6) producing the report/manuscript.

First, the principal researcher and two research members read the data transcript repeatedly to identify the overall contents of the transcript. Next, the researchers started to code manually, made notes about potential data items of interest, made questions, and related them to the data obtained and other initial ideas, to get the code. In the third step, the researcher analyzed, combined, and compared the significant codes found to be arranged into themes.

Next, the researcher reviewed the themes by placing the code into each theme to ensure the theme's suitability with the code. Finally, the researcher re-examined whether the supporting data in the code was adequate and coherent with the theme. Then reread the entire data to recheck the theme and re-coded any additional data created or modified at this stage. After the review process was complete, the next step was to define the identified themes. The last step was to write a manuscript.

The credibility, transferability, dependability, and confirmability criteria were used to guarantee trustworthiness in this study (Lincoln, Y. S., & Guba, 1985). To ensure credibility, the participants were heterogeneously selected and ranged in age, education level, length of work in the postpartum ward, and role in patient care. In addition, focus group discussion, interview, and observation methods were used to collect data (Lambert & Loiselle, 2008).

The research team always conducted meetings at every stage, verbatim, during the transcription and coding process, and when determining, reviewing, and defining themes to ensure confirmability. In addition, the researcher also returned the transcripts to the participants to be corrected and to prevent any errors due to misinterpretations and misunderstandings. All participants agreed to the transcript's contents, and no corrections were given.

The researchers developed a detailed research protocol to ensure dependability and carried out each study stage according to the created protocol. The researcher detailed the subjects, participants, methods, collection, and data analysis processes to ensure transferability.

Informed consent was given to the respondent before data collection. The form explains the purpose of the study, the rights and obligations of the respondent, the anonymity of the participants, the data required, and the respondents' approval. This research has received ethical approval from the Hospital Health Research Ethics Commission number 420/03868/IV/2021.

## RESULTS

The participants involved in the study were all women aged between 27 and 52 years old. Most of the participants' highest level of education was a diploma/associate degree. Their length of work as a nurse was 7-25 years. The length of work in the postpartum ward was a minimum of half a year and a maximum of 18 years. Most of them were associate nurses.

The characteristics of the participants are listed in Table 1, and the resulting themes are listed in Table 2.

**Table 1.** Participants' characteristic

| Var | Age (years) | Educational level | Length of work as a nurse (years) | Size of work in the postpartum ward (years) | Role            |
|-----|-------------|-------------------|-----------------------------------|---|-----------------|
| P1  | 27          | Diploma           | 7                                 | 5   | Associate nurse |
| P2  | 52          | Diploma           | 25                                | 4   | Associate nurse |
| P3  | 32          | Diploma           | 11                                | 0.5   | Associate nurse |
| P4  | 42          | Bachelor's        | 25                                | 18  | Primary         |

| Var | Age (years) | Educational level | Length of work as a nurse (years) | Size of work in the postpartum ward (years) | Role            |
|-----|-------------|-------------------|-----------------------------------|---|-----------------|
|     |             | degree            |                                   |   | nurse           |
| P5  | 35          | Diploma           | 13                                | 13  | Associate nurse |
| P6  | 33          | Diploma           | 11                                | 11  | Associate nurse |
| P7  | 43          | Bachelor's degree | 25                                | 6   | Primary nurse   |

**Table 2.** Themes and subthemes

| Theme  | Sub-theme                             |
|--|---------------------------------------|
| Reasons for the need for postpartum education  | Patients readmitted to the hospital   |
|  | Excessive educational topics          |
|  | Short admission time                  |
|  | High-risk postpartum mothers          |
| Obstacles to implementing postpartum education | Time constraints                      |
|  | Limited educational media             |
|  | Environmental and cultural influences |
| Expectations of future follow-up care          | Continuous monitoring                 |
|  | Accessibility of educational media    |

### **Reasons for the need for continuous postpartum education**

This theme consists of 4 subthemes: patients readmitted to the hospital, excessive educational topics, short admission time, and high-risk postpartum mothers.

#### *Patients were readmitted to the hospital.*

All participants stated that many postpartum mothers were readmitted, particularly patients with a history of preeclampsia. Two participants said their patient's condition did not improve because of severe preeclampsia, and their blood pressure remained high. Therefore, they were readmitted after three days. The observation during data retrieval showed that two patients were readmitted because of high blood pressure.

*... (patient's) severe preeclampsia did not recover after giving birth. Her blood pressure is still high; these are symptoms of eclampsia, so the patient returned to be treated after being discharged from the hospital three days ago. (P2))*

#### *Various educational topics*

Several participants stated that many health education topics were discussed with postpartum mothers, including maternal and infant care. One participant said that because nurses provide much information, there are patients who understand and some who do not. Another participant stated that the difficulty in postpartum care was due to the many educational topics.

*And the information we provide may be easy to understand, but some (patients) may not be able to understand it. Much information is provided, so not all (patients) can easily understand (the provided information). (P5)*

*So it seems like, ma'am.. the difficulty in maternity (postpartum care) is because of the many educations. (P1)*

#### *Short admission time*

Most participants said that 24 hours is not long enough for the postpartum maternal care process because it is considered very little time for nurses to provide the required education to postpartum mothers. One participant stated that it would take at least a week of care until the mother can independently take care of herself and her baby. According to the hospital's rules, the period of hospitalization for postpartum patients with vaginal delivery is 24 hours and three days for C-section.

*Care should be given to postpartum mothers for at least a week until they can bathe their baby and breastfeed. (P3)*

#### *High-risk postpartum mothers*

All participants said that most women were treated as high-risk postpartum mothers. The hospital is a referral hospital; thus, most patients are already in high-risk conditions. In addition, many patients give birth by cesarean birth. Therefore the information provided to postpartum mothers is considered less effective because the patient would still be focused on her condition. One participant said that more than 50% of patients treated are postpartum mothers with severe preeclampsia history.

*Much information is given at once, but the patients are not fully conscious yet, which is less effective. Moreover, they would not have adjusted to the hospital environment because they still feel pain. (P1)*

### **Obstacles to implementing postpartum education**

This theme consists of 3 subthemes: time constraints, limited educational media, and environmental and cultural influences.

#### *Time constraints*

According to the respondents, they would only have a limited time to provide educational materials or advice. Therefore, the activity was conducted once as a group with all patients in one room. We also found nurses who provided information in a single room with five patients, and although the patients were experiencing different conditions, they were delivered the same educational health topics.

*We also educated patients when they would go home while giving medicine, measuring their blood pressure, and explained their diet, what to do at home, and so on. So sometimes only 5% or 10% of the information we provided was absorbed by the mother (P6).*

### *Limited educational media*

Some participants mentioned not using any new media when educating the patients. Sometimes they would directly demonstrate the educational information in front of patients. One person said that they provide education through leaflets.

*There is still limited (educational) media; only leaflets are available (P5)*

### *Environmental and cultural influences*

The participants stated that the education given to patients could sometimes be ineffective even if the patient understands the information. One participant noted that the patient's home environment could be negatively influenced. For example, the patient would understand the importance of rest. Still, because the people around the patient say that postpartum mothers should not take a nap, the patient is not resting. Another participant noted that although we live in the modern era, some people are still attached to the wrong cultural traditions or myths, such as not eating seafood postpartum.

*Then also, about eating nutritious food, sometimes there are still people who believe in the myth that you can't eat fishy food. Many patients return to the hospital with severe wounds because, at home, they only eat vegetables. Yes, at home, they still believe in the village leaders who said they couldn't take a nap. (P2)*

### **Expectations of future follow-up care**

This theme consists of 2 subthemes: continuous monitoring and accessibility of educational media.

#### *Continuous monitoring*

Most participants expressed their hopes of monitoring the patient's condition after being discharged from the hospital. However, one participant stated that patients are only referred to healthcare workers near their residence. Thus, they do not know about the patient's condition after discharge.

*Monitoring after the patient goes home, so we know if the patient is healthy or not (is essential). Because so far, we don't know how to follow up at home. .... Yes, I don't understand how, but if they are readmitted again after seven days of being treated, it's not okay; usually, you would know their condition when the patient goes for check-ups or visits. (P4)*

#### *Accessibility of educational media*

The participants have also expressed their desire for educational media to be accessible at any time by the patient. One participant also stated that the educational media should contain much information so patients can still access the media despite the nurse's time limitations.

*If this is the case, the patient can read casually at home, and information absorption can be maximized. (P1)*

*We also have a lot of work and limited educational media, such as leaflets, so it is hoped that the media could be more audiovisual and be played or viewed many times. (P5)*

*Due to time constraints, patients need media that can be accessed at any time... (P3)*

## **DISCUSSION**

This pilot study explores nurses' perspectives on meeting the educational needs of postpartum mothers. Three themes were identified in this study, namely, the need for continuous postpartum education, obstacles to implementing postpartum education, and expectations of future follow-up care. Based on our findings, there are three main reasons for the need for continuous postpartum education: patients being readmitted to the hospital, short admission times, and high-risk postpartum mothers.

Meanwhile, the main obstacles to implementing postpartum education are limited educational media and environmental and cultural influences. In this study, the participants stated that the readmitted patients have a history of preeclampsia. This supports the results of previous studies, which said that most readmitted postpartum patients were diagnosed with hypertension during antepartum, intrapartum, or postpartum (Clapp et al., 2018) (Yee et al., 2020).

In addition, the respondents described that these patients were readmitted due to high blood pressure and symptoms of preeclampsia, so they returned to the hospital three days after discharge. Moreover, a previous Yee et al., (2020) study stated that 1.7% of patients were readmitted within 14 days after birth. The health education provided is ineffective due to the excessive topics discussed in postpartum care. Health education topics should focus on the patient's current needs because need-based education will be more readily accepted and understood by patients.

Furthermore, due to the targeted topic selection, nurses could convey the information effectively and efficiently, and patients can benefit better from this than being given varied health education. A previous study has also shown that need-based health education has helped to improve self-efficacy and patient health status (Ndotsi et al., 2016). In addition, need-based patient education is more effective in reducing anxiety and increasing patient satisfaction and is more efficient than traditional patient education (Wongkietkachorn et al., 2018).

Our study also found that the admission time is too short and insufficient for healthcare workers to provide comprehensive health education to patients. Short admission time results in shorter nurse-patient contact time, whereas increasing contact time and patient health education can lead to more effective treatment goals (Mshelia et al., 2007). With longer admission times, nurses could also use alternative methods to educate patients through different media such as video and internet-based health education (Lewkowitz & Cahill, 2021) (Agustina et al., 2021) (McNab & Skapetis, 2019).

One of the obstacles in providing education to patients was the nurses' limited time due to their workload. One study reported that 65% of nurses rated task load as the most critical component of their workload. Work performance often depends on workload, cognitive demands, time pressure, effort, and physical demands (Lebet et al., 2021).

Furthermore, the limited availability of educational media was also an obstacle in providing health education to patients. Educative media is an essential element in the success of health education. Many studies have reported that media use in health



education effectively improves patients' health conditions, such as posters, audiovisual media, comics, and mobile phone applications (Setiawati et al., 2017) (Ulya & Iskandar, 2017)(Nurdianti et al., 2020).

Another obstacle in providing health education for postpartum mothers by nurses is the influence of the environment and culture. In Indonesia, especially in rural areas, strong cultural traditions and myths related to pregnancy, childbirth, and postpartum. Cultural influences are still strong and can affect postpartum maternal health, including abstinence from seafood.

One study reported that 38.2% of postpartum mothers abstain from foods such as seawater fish, crabs, shrimp, and squid (Mole et al., 2019). In this study, the respondents mentioned that the environmental influence on postpartum mothers was their family's ban on naps. In line with previous research, a family prohibition of naps is a culture still inherent in Indonesian society, especially within Javanese society (Tristanti & Khoirunnisa, 2019). Thus, education for postpartum mothers during follow-up care must also involve the family.

## **DISCUSSION**

The results of this study have important implications for the methods and approaches to health education for postpartum mothers, especially for nurses and hospitals. For example, nurses must manage time when providing health education to patients and involve the family when educating the patient so that the family also understands the needs of postpartum mothers. In addition, hospitals can also provide educational media facilities that can be easily accessible by patients, such as by playing educational videos in the patient's room that contain the topic of postpartum care using a cultural approach that does not conflict with the patient's health.

In terms of limitations, this study was only conducted in one hospital, and the sample was too small. Therefore, it did not describe the perspective of all nurses in all hospitals. However, the research site is the highest level of referral hospitals in the southern part of Central Java, so the results of this study specifically describe the perspective of postpartum nurses where most patients are high-risk patients.

Although there are limitations in this study, this study is the first to explore the health education perspective of postpartum mothers from the nurse's point of view. Therefore, the results of this study can be used as a reference for developing better methods of implementing postpartum education, not only for patients but also for nurses and hospitals. Further research is needed to find an effective form of postpartum education for patients, nurses, and hospitals.

## **CONCLUSION**

This study is the first to explore nurses' perspectives on meeting the educational needs of postpartum mothers. Three themes were identified in this study: reasons for the need for continuous postpartum education, obstacles to implementing postpartum education, and expectations of future follow-up care. The need for continued postpartum education was patients being readmitted to the hospital, short admission times, excessive educational topics, and high-risk postpartum mothers.

The obstacles to implementing postpartum education are time constraints, limited educational media, and environmental and cultural influences. Finally, the subthemes of future follow-up care expectations are continuous monitoring and accessibility of educational media. Our study has provided new insights regarding the continuity of

postpartum education and the obstacles nurses face and has implications for developing a system of continuity of care for postpartum patients, especially for high-risk patients.

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