



Research Article

The Influence Of Education Of Postpartum Mothers On The Knowledge Of Postpartum Risk Signs

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ABSTRACT

One of the critical periods associated with maternal mortality risk is the postpartum period. Hence, it is imperative to prioritize postnatal care as a means to reduce maternal and infant mortality rates. According to the World Health Organization (WHO), approximately 30% of mothers face mortality risks during the puerperium. Unfortunately, many postpartum mothers are unaware of potential issues during this period, leading to delayed self-examinations with healthcare professionals. This lack of awareness stems from insufficient knowledge regarding the danger signs that may arise during the postpartum period. Previous study revealed that a significant number of mothers lack awareness about these danger signs during the puerperium. To enhance the knowledge of postpartum mothers, one effective approach is to provide education. This study aimed to investigate the impact of educational interventions on postpartum mothers' knowledge of danger signs during the postpartum period. The research employed a Quasi-Experimental design with a one-group pretest-posttest design. The sample consisted of 30 postpartum mothers, and all participants completed the entire study. Data collection involved administering a questionnaire both before and after the educational intervention. The Statistical Package for the Social Sciences (SPSS) was used for data analysis, and the Wilcoxon test was utilized with a significance level set at $\alpha < 0.05$. Statistical analysis yielded a p-value of 0.000 ($\alpha < 0.05$), indicating a statistically significant effect of education on increasing postpartum mothers' knowledge of danger signs during the puerperal period.

Keywords: Education, knowledge, postpartum danger signs

INTRODUCTION

Postpartum care services play a crucial role in providing essential care to women and newborns following childbirth, a period known as the puerperium, extending up to 42 days after delivery. This phase marks the recovery of the reproductive organs, and it is imperative to monitor and provide necessary attention to prevent complications. The postpartum period carries a risk of maternal mortality, emphasizing the need for comprehensive care to reduce maternal and infant



mortality rates. According to a World Health Organization (WHO) report cited by Kassebaum NJ et al., 30% of maternal deaths occur during the postpartum period (WHO, 2022).

In 2015, the maternal mortality ratio (MMR) in AKI was reported at 305 per 100,000 live births (Ministry of Health RI, 2021). The global MMR target for 2030 is set at no more than 70 per 100,000 live births, with all countries aiming to maintain MMRs not exceed twice the world average to align with the Sustainable Development Goals (SDGs). Unfortunately, these targets remain unmet, as revealed by the United Nations Children's Fund (UNICEF) in 2019. UNICEF reported that 2.8 million pregnant women and newborns died, translating to one death every 11 seconds, primarily due to complications that could have been prevented or treated (Suci et al., 2022).

During the postpartum period, it is essential to schedule at least four visits for mothers and their babies. The first visit should occur 6-8 hours after delivery, followed by visits at 6 days postpartum, 2 weeks postpartum, and a final visit at 6 weeks postpartum. These visits are essential to assess the well-being of both the mother and the baby, ensuring that any changes or complications are promptly addressed with the assistance of healthcare professionals (Prawiroharjo, 2014). Despite the significance of postpartum care, the 2018 Riskesdas survey reported that 50.1% of women of childbearing age in Indonesia who experienced complications during the puerperium did not seek initial medical assistance. In Southeast Sulawesi, this figure was even higher, at 67.40% (Ministry of Health, 2019).

The failure to detect problems and danger signs experienced by postpartum mothers often results from their lack of understanding about the potential risks during the postpartum period. Several factors can influence the knowledge possessed by these mothers, including their level of education, socio-cultural background, socio-economic status, age, occupation, access to information, personal experiences, and the environment they are in. Additionally, counseling provided by healthcare professionals during pregnancy and after the delivery process plays a crucial role in shaping their awareness of postpartum danger signs (Pamuji, 2019). Studies conducted by Siallagan et al. revealed that a significant portion, approximately 70%, of postpartum mothers lacked adequate knowledge about recognizing and identifying danger signs during the postpartum period (Siallagan et al., 2020).

One effective means of increasing postpartum mothers' knowledge is through education. This educational approach involves providing information about the changes that occur during the puerperium, potential danger signs, and actions that can be taken to prevent complications. In a community service initiative led by Deswati et al., postpartum mothers were educated about these aspects. Following this educational intervention, the results showed a 100% increase in knowledge across all questionnaire items (Desmawati et al., 2021). Similarly, research conducted by Nafidina demonstrated significant improvements in knowledge among a group of mothers who received postpartum care education (Nafidina, 2022). The purpose of this study was to investigate the impact of postpartum mother education on their knowledge of postpartum danger signs in Moasi Village, Towea Health Center, Muna District.

METHODS

A quasi-experimental research design with a quantitative research approach was employed in this study. In this study, a pretest was carried out and then given treatment (intervention), then a post-test was carried out (Sugiyono, 2012). Initially, a pretest (P-1) was administered to the respondents, followed by the implementation of an intervention, namely education on the danger signs of the puerperium (X). Subsequently, after the intervention had been completed, a post-test

(P-2) was conducted to assess the knowledge of postpartum mothers regarding danger signs during the puerperium.

The research took place in Moasi village, Towea Health Center, Muna District, during the period from September 1 to October 15, 2022. The sampling method employed in this study was total sampling, which means all postpartum mothers in Moasi Village, Towea Health Center, Muna District, were included in the sample, totaling 30 postpartum mothers. Primary data collection was conducted using a questionnaire as the data collection instrument, allowing for direct data acquisition from the sample participants. Due to the non-normal distribution of the data, the Wilcoxon test was utilized to assess the differences in knowledge before and after the education intervention. Data analysis was carried out using the Statistical Package for Social Science (SPSS) program.

RESULT

Table 1. Knowledge Levels of Postpartum Mothers After Following Education Intervention in the Towea Health Center's Service Area (n=30)

Knowledge	Frequency	Percentage (%)
Less	15	50.0
Sufficient	11	36.7
Good	4	13.3

According to Table 1, the distribution of knowledge levels before receiving education was as follows: the majority, comprising 15 participants (50%), fall into the "less" category, 11 participants (36.7%) have "sufficient" knowledge, and the minority, consisting of four participants (13.3%), fall into the "good" category.

Table 2. Knowledge Mean, St. Deviation and Min/Max Score of Postpartum Mothers Before Following Education Intervention in the Towea Health Center's Service Area (n=30)

Variable	Mean	Std. Deviation	Min	Max
Mother's knowledge before education intervention	11.47	2.688	6	18

Based on the results of the study, Table 2 shows that the mean knowledge before being given education was 11.47 with a standard deviation of 2.688

Table 3. Knowledge Levels of Postpartum Mothers After Following Education Intervention in the Towea Health Center's Service Area (n = 30)

Knowledge	Frequency	Percentage (%)
Less	1	3.3
Sufficient	17	56.7
Good	12	40.0

Based on table 3, the frequency of knowledge after being given education on mother's knowledge increased in the sufficient category to 17 people (56.7%), good knowledge amounted to 12 people (40.7%) and the least in the less category was 1 person (3.3 %).

Table 4. Knowledge Mean, St. Deviation and Min/Max Score of Postpartum Mothers After Following Education Intervention in the Towea Health Center's Service Area (n=30)

Variable	Mean	Std. Deviasi	Min	Max
Mother's knowledge after education intervention	14.20	1.827	10	19

Based on the results of the study, table 4 shows that the average (mean) knowledge after being given education was 14.20 with a standard deviation of 1.827.

Table 5. Analysis of Knowledge Differences Before and After Education for Postpartum Mothers at Towea Public Health Center's Service Area (n=30)

Variable	Mean	Positive rank	P-Value
Mother's knowledge before education intervention	11.47	24	0,000
Mother's knowledge after education intervention	14.20		

Based on the data analysis results presented in Table 5, it is evident that the mean knowledge score increased significantly from 11.47 before education to 14.20 after education. The positive rank values indicate that 24 data points exhibited an improvement in knowledge, with a p-value of 0.000. The decision-making process involves evaluating the significance level of the p-value ($\alpha = 0.05$). The obtained p-value of 0.000 is $< \alpha$, signifying a significant difference before and after education (thus, H_a is accepted).

DISCUSSIONS

The demographic characteristics used in this study are Age, Last Education, Occupation, and Parity. Based on the results of a study conducted on 30 postpartum mothers who were in the working area of the Towea Health Center. This study shows that most postpartum mothers are generally in the risk category, namely those aged less than 20 years and more than 35 years, as many as 17 people (56.7%). Age in pregnancy, childbirth, and postpartum is very important to note. Twenty people (66.7%) graduated from elementary school, based on work as housewives, 21 people (70%), and 14 people (46.7%) multiparity parity grande multipara 13 people (43.3%).

Based on the results of data analysis, it was found that the mean before and after being given education increased from 7.67 to 14.79. From the positive rank value, it was found that 24 data experienced an increase in knowledge with a p-value of 0.000. The basis for decision-making is done by looking at the degree of significance of the p-value ($\alpha = 0.05$). The P value obtained was 0.000, so p-value $< \alpha$ means there was a significant difference before and after being given education on postpartum danger signs (H_a accepted).

The results indicate significant differences in knowledge regarding the danger signs of the puerperium before and after receiving education. This is evident from the average knowledge levels both before and after the education. Additionally, the "less" category decreased from 15 people to just 1 person, signifying that 14 individuals improved their knowledge to reach the "sufficient" and "good" categories. These findings align with research conducted by Kristiangsih, which demonstrated that education can enhance knowledge levels, improving them from 80% to a full 100% in the "good" category (Kristiningtyas, 2022).

In this study, during the pretest, mothers exhibited a very low level of knowledge. However, following education on the danger signs of the postpartum period, there was a noticeable increase in maternal knowledge, as reflected in the elevated post-education average. Furthermore, the "less" category decreased in size, while the "sufficient" and "good" categories witnessed an increase. One of the key factors contributing to the substantial impact of education, as hypothesized in this

research, is the method employed, which involved visiting respondents at their homes. Danger signs during the puerperium refer to abnormal signs or symptoms that can arise in the postpartum period. These signs serve as indicators of potentially harmful conditions for the mother. In fact, the gravest consequence of failing to detect these danger signs is maternal mortality (Manuaba, 2014). Research conducted by Dangura underscores the prevalence of low knowledge among postpartum mothers concerning the danger signs of the puerperium, leading to delayed treatment-seeking (Dangura, 2020).

The results of the comparative test of knowledge before and after receiving education indicate a p-value of 0.000, signifying the acceptance of H_a . This implies that education has a significant impact on mothers' knowledge, both before and after the educational intervention. This conclusion is supported by the positive rank value of 24, indicating that 24 respondents experienced an improvement in their knowledge. Research conducted by Iliyasu et al. underscores the strategic importance of providing education as an effective means to enhance mothers' knowledge in recognizing danger signs during the puerperium (Iliyasu et al., 2019).

The education provided takes the form of information about the danger signs of the puerperium, explanations of what the puerperium entails, and insights into the potential danger signs that may arise during the postpartum period for women. Furthermore, it covers preventive measures to mitigate the occurrence of these danger signs. Deswati et al. conducted community service that involved educating postpartum mothers. The results showed a remarkable 100% increase in knowledge for each question item after the health education intervention (Desmawati et al., 2021). Similarly, research conducted by Nafidina demonstrated significant improvements in the group of mothers who received postpartum care education (Nafidina, 2022).

CONCLUSION AND SUGGESTION

The conclusion drawn from this research is that there is a notable increase in mothers' knowledge levels. The average knowledge score before receiving education was 11.47, which significantly increased to 14.07 after education. Education exhibits a significant influence on knowledge, supported by a p-value of 0.000, indicating $p < \alpha$ and signifying a significant difference before and after receiving education.

Recommendations stemming from this study include advising healthcare workers to provide clients with education encompassing information about the danger signs of the puerperium, an explanation of what the puerperium entails, and insights into potential danger signs that may arise in postpartum women during their postpartum period. Additionally, guidance on preventing these danger signs during the puerperium should be part of the educational approach.

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