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RISK FACTORS ASSOCIATED WITH POSTPARTUM OBSTETRIC DANGER SIGNS

Erik Ekowati, *Nina Herlina*
Faculty of Health and Pharmacy Sciences, Department of Midwifery, Gunadarma University

Correspondence address:
Depok City, West Java
Email : nina_herlina@staff.gunadarma.ac.id

Abstract

Backgrounds: The postpartum period is approximately 40-42 days after giving birth, during which time there is a risk of complications for the mother. However, this may not be fully realized by the mother because her main focus is on caring for the baby. Therefore, mothers and families need to be aware of the causes of the risk of postpartum danger. The purpose of this study was to determine the factors that cause danger signs during the puerperium so that appropriate and timely treatment can be provided. **Method:** The The research design was analytic with a cross-sectional approach. The study involved 70 postpartum women, and the total sampling was based on age, knowledge, and family support. The results of the chi-square statistical test showed that there was a relationship between postpartum danger signs and education (p-value = 0.003, OR = 6.413), knowledge (p-value = 0.020, OR = 4.773), and family support (p-value = 0.040, OR = 3.838). The result of the age variable was that there was no relationship (p-value = 0.967, OR = 1.202). **Conclusion:** Postpartum women, based on their level of education, good knowledge and husband's support, are able to detect danger signs during the postpartum period, ensuring the health of both the mother and baby.

Keyword: Postpartum

INTRODUCTION

The puerperium is the period after the expulsion of the placenta and the return of the reproductive system's health condition as it was before pregnancy, and the process lasts for 6 weeks (Pitriani, 2014). Care during the postpartum period needs to receive attention because approximately 60% of complications are the main cause of maternal death after giving birth (Bobak, 2016).

The World Health Organization (WHO) states that the maternal mortality rate is very high. Approximately 830 women die from complications of pregnancy or childbirth worldwide every day (WHO, 2019). It was estimated that in 2015, around 303,000 women died during and after pregnancy and childbirth. The maternal mortality ratio in developing countries in 2015 was 239 per 100,000 live births (WHO, 2019). The maternal mortality rate in Indonesia in 2015 was 305 per 100,000 live births. This figure was still far from the Millennium Development

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Goals (MDGs) target set in Indonesia, which was 105 deaths per 100,000 live births (Ministry of Health RI, 2019).

The number of maternal deaths in DKI Jakarta in 2021 was 152 mothers. This figure has continued to increase in the last five years, with 44 deaths in 2017, 98 deaths in 2018, 100 deaths in 2019, 177 deaths in 2020, and 152 deaths in 2021. The maternal mortality rate in 2021 was 73.2 per 100,000 live births. Several types of causes of death in pregnant women, childbirth, and postpartum are bleeding, hypertension, infection, circulatory system disorders, metabolic disorders, and others (DKI Jakarta Provincial Health Office, 2021).

Morbidity in the first postpartum week is usually caused by endometritis, infection at the episiotomy or lacerations, urinary tract infections, and emotional disturbances (Baby blues), sub-involution, mastitis, breast milk retention, and other diseases (Yanti and Sundawati, 2014). Dangerous conditions that arise during the puerperium include bleeding and puerperal infections (Walyani and Purwoastuti, 2015; Nugroho, 2014). The bleeding resulted in 27.1% of maternal deaths, and 72.6% of these were categorized as postpartum hemorrhage. Postpartum hemorrhage is bleeding of more than 500 cc that occurs after the baby is born within 24 hours and before 6 weeks after delivery (Sarwono, 2016).

With high complications and maternal mortality rates, the Program Action Plan for the Directorate General of Public Health for 2020-2025 has set a policy direction for the Ministry of Health to improve health services to achieve the highest degree of health. This will be accomplished by strengthening primary health care and encouraging increased promotive efforts and preventive measures, supported by innovation and the use of technology in the life cycle approach. The approach starts from pregnant women, postpartum mothers, infants, toddlers, school-age children, adolescents, productive age, and the elderly, with continuous interventions. The plan also emphasizes strengthening the prevention of risk factors by increasing screening and early detection in all puskesmas (primary health centers), their networks, and networks using the PIS-PK approach (prenatal check-ups), provision of adequate nutrition, monitoring of complications during childbirth, and postpartum care. Additionally, the plan aims to empower communities in efforts related to non-communicable disease control

(strengthening posbindu), improve service quality through strengthening primary health services and referral systems, and promote the Healthy Living Community Movement (GERMAS) (Ministry of Health of the Republic of Indonesia, 2020).

Attempts to reduce maternal mortality have been made, but there are still problems that cause health issues for mothers after giving birth. Factors that cause postpartum danger signs include hormonal fluctuations, psychological and personality factors, and physical factors such as a history of complications during pregnancy and childbirth, as well as caesarean section (Desfanita, Misrawati, Arneliwati, 2015). Additionally, social and demographic factors play a role. Demographic factors, such as being too young or too old, the experience of the process of pregnancy and childbirth, as well as the psychosocial background of the woman concerned, such as education level, marital status, unwanted pregnancies, history of previous psychiatric disorders, socio-economic status, and adequacy of social support from their environment (husband, family, and friends) (Rachmawati, 2021).

Various factors that contribute to the occurrence of postpartum signs and dangers can lead to complications that, if not treated quickly and appropriately, can cause maternal death. By being able to identify the signs and dangers of childbirth, health workers and the support of mothers and families can ensure that the related treatment is carried out promptly. Postpartum care refers to medical and nursing services provided to women during the postpartum period, which is the 6-week period after giving birth, and involves the participation of mothers and families (Mattea Romano, 2010). From the description above, the researcher is interested in conducting a study entitled Risk Factors Associated With Postpartum Obstetric Danger Sign.

METHODS

The design used in this study is an analytic design with a cross sectional approach, which aims to determine the relationship between the characteristics and the level of knowledge of postpartum mothers. The population in this study comprised all postpartum mothers who visited the Anny Rahardjo Clinic, Pasar Rebo sub-district, East Jakarta, from March 2023 to May 2023, totaling 70 people,

and the researchers used a total sampling method as the sample for this study. The instrument used in the research process was a closed questionnaire containing a list of independent variable questions, such as complications in postpartum mothers with answer choices of "yes" and "no." Dependent variables included age with answers choices of "not at risk" and "at risk," education with answer choices of "low" and "high," family support with answer of "bad" and "good," and knowledge of postpartum maternal complications with answer choices of "good" and "poor knowledge".

Data was collected, processed, and then analyzed using software. Univariate analysis was presented in the form of frequency and percentage distribution tables. Bivariate analysis involved data testing using the chi-quare statistical test to determine the relationship between the two variables with a 95% confidence level. The guidelines for accepting the hypothesis were as follows: if the probability value (P_{Value}) was <0.05, then H0 (null hypothesis) was rejected; if (P_{Value}) was > 0.05, then H0 was accepted. The data used in the study was nominal measuring scale data. Ethical treatment of research subjects was ensured by maintaining the confidentiality of the respondents'identities, obtaining their consent to participate in research, showing respect, and providing information about the purpose of the research.

RESULTS AND DISCUSSION

Univariate analysis

Table 1. Univariate Analysis of Puerperal Danger Signs in Postpartum Mothers

Danger sign	Amount (n)	Percentage (%)
No	52	74,3
Yes	18	25,7
Amount	70	100.0

The table above shows that there were 18 people (25.7%) of postpartum mothers who experienced signs and dangers during the puerperium.

Table 2 Univariate Analysis of Age, Education, Knowledge, Husband's Support for Postpartum Mothers

Variable	Amount (n)	Percentage (%)
Age		
No	45	64,3
Yes	25	35,7
Amount	70	100.0

Education		
Low	28	40.0
Tall	42	60.0
Amount	70	100.0
Knowledge		
Good	34	48,6
Not enough	36	51,4
Amount	70	100.0
Family support		
Good	36	51,4
Not enough	34	48,6
Amount	70	100.0

Table 2 shows that out of the 70 respondents, most of them were between the ages of 17-30 years, with 45 people (64.3%) and they were not at risk during the postpartum period. A smaller portion, 25 people (35.7%), were between the ages of 31-45 years. Among the postpartum mothers, 42 people (60.0%) had higher education levels. Addictionally, 36 people (51.4%) had less knowledge about postpartum complications, and the same number , 36 people (51.4%), reported having good family support.

Bivariate Analysis

Table 3 Bivariate Analysis of the Relationship between Age, Education, Knowledge, Husband's Support, and the Incident of Puerperal Danger Signs

Variable	**Signs and Dangers of Puerperal**		**Total**	***Pvalue***	***OR***
Age	**No**	**Yes**			
No Risk	34 (48.6%)	11 (15.7%)	45 (64.3%)		
At risk	18 (25.6%)	7 (10%)	25 (35.7%)	0.967	1.202
Total	52 (64.3%)	18 (35.7%)	70 (100%)		
Education	**No**	**Yes**			
Tall	37 (52.9%)	5 (7.1%)	42 (60%)		
Low	15 (21.4%)	13 (18.6%)	28 (40%)	0.003	6,413
Total	52 (74.3%)	18 (25.7%)	70 (100%)		
Knowledge	**No**	**Yes**			
Good	30 (42.9%)	4 (5.7%)	34 (48.6%)		
Not enough	22 (31.4%)	14 (20%)	36 (51.4)	0.020	4,773
Total	52 (74.3%)	18 (25.7%)	70 (100%)		
Family support	**No**	**Yes**			
Yes	31 (44.3%)	5 (7.1%)	36 (51.4%)		
No	21 (30%)	13 (18.6%)	34 (48.6%)	0.040	3,838
Total	52 (74.3%)	18 (25.7%)	70 (100%)		

Analyzing the relationship between age and postpartum danger signs in postpartum mothers, it was found that out of 70 respondents who were at risk, most of them experienced postpartum danger signs, namely 7 people (28.0%), while 34 people (75.6%) of respondents who were not at risk did not experience postpartum danger signs.

The statistical test resulted in a p-value of 0.967, indicating that there is

no significant relationship between age and the incidence of puerperal danger signs. The research results obtained and Odd Ratio (OR) of 1.202, indicating that a mother with a risky age has a 1.202 times chance of experiencing a puerperal danger sign.

The results of this study indicate that there is no relationship between age and signs and dangers of postpartum puerperium at the Anny Rahardjo Clinic. The majority of postpartum mothers at delivery were in the early adult range, specifically 20-35 years, accounting for 76.7% of the participants. Early adulthood is a developmental stage of reproductive age, making it safe for mothers to became pregnant and give birth. Therefore, it is appropriate that the highest age group for first-time mothers giving birth falls within the range of 20-35 years.

WHO recommends that the age considered safe for pregnancy and childbirth is 20-35 years old. Pregnancy at less than 20 years is not optimal physically, and emotions tend to be unstable, leading to a higher likelihood of experiencing mental shocks easily (Manuaba, 2014). At this age, the mother is not fully prepared physically and mentally to carry out self-care during the postpartum period (Saifuddin, 2009).

Based on data from 70 respondents, it was found that there were more respondents aged between 17-30 years than respondents aged 31-40 years. With the majority of respondents being young, the healing of perineal wounds was mostly good. This may be attributed to the age of the respondents, as younger mothers tend to have faster healing of wounds compared to older mothers. Younger mothers generally have better mobilization and vascularization, which can contribute to quicker healing. Additionally, the good healing of perineal wounds may also be supported by the respondents' education level (Mas'adah, 2010).

The results of the analysis of the relationship between education and postpartum danger signs in postpartum mothers found that out of 70 respondents with higher education, most of them did not experience postpartum danger signs, namely 37 people (88.1%), while 15 people (53.6%) of the respondents who experienced postpartum danger signs had low education. The statistical test resulted in a p-value of 0.003, indicating a significant relationship between education and the occurrence of postpartum danger signs. Based on the analysis results, the Odd

Ratio (OR) was found to be 6.413, suggesting that mothers with low education had a 6.413 times higher chance of experiencing postpartum danger signs.

A person's level of education influences postpartum mothers in detecting danger signs during the puerperium. The results showed that the majority (60.00%) of primiparous postpartum mothers had at least a high school education. The statistical test resulted in a p-value of 0.020, indicating a significant relationship between knowledge and the occurrence of postpartum danger signs. Based on the analysis results, the Odd Ratio (OR) was found to be 4.773, suggesting that mothers with low knowledge have a 4.773 times higher chance of experiencing postpartum danger signs.

Mothers with higher education will likely have more knowledge about self-care during the postpartum period and will actively practice self-care, leading to a healthier body and reduced risks during the postpartum period (Mudatsir, 2017). Previous studies have shown that mothers with higher education tend to experience lower levels of depression and receive more social support compared to those with lower education (Hung, 2011). Additionally, primiparae with low education have been found to face a doubled risk of perinatal death (Haksari & Surjono, 2001).

The results of the research on the relationship between knowledge and postpartum danger signs in postpartum mothers found that out of 70 respondents who had good knowledge, most of them did not experience postpartum danger signs, namely 30 people (88.2%). On the other hand, respondents who experienced postpartum danger signs had less knowledge, specifically 22 people (61.1%).

Good maternal knowledge is expected to lead to positive maternal behavior in recognizing the danger signs during the puerperium. However, for mothers who have less knowledge, they are at a greater risk of facing puerperal hazards. Therefore, the role of health workers is crucial in being more active in providing education and guidance on danger signs during the postpartum period. This can be achieved through the use of the MCH (Maternal and Child Health) handbook at every visit during pregnancy and the postpartum period (Rahayu, Rosita, 2020).

The results of the analysis of the relationship between family support and puerperal danger signs in postpartum mothers found that out of 70 respondents who received family support, most of them did not experience puerperal danger signs,

namely 31 people (86.1%). On the other hand, respondents who experienced puerperal danger signs and did not receive family support amounted to 13 people (38.2%).

The statistical test resulted in a p-value of 0.040, indicating a significant relationship between family support and the occurrence of postpartum danger signs. The Odds Ratio (OR) was calculated to be 3.838, suggesting that mothers who do not receive family support have a 3.838 times higher chance of experiencing postpartum danger signs.

The most common family support is provided by biological mothers and husbands. This support can come in the form of both informational guidance and direct assistance to help mothers take care of themselves after giving birth. Postpartum mothers who have just experienced the new phase of becoming mothers require significant support from various individuals, especially their closest family members. This aligns with previous research, which stated that during the early postpartum period, postpartum mothers are usually assisted by their mother, mother-in-law, sister, or husband (Dennis et al., 2007).

Furthermore, the results of another study involving 132 postpartum mother respondents indicated that 32% of them felt the need for social support after giving birth (Rachmawati, Marcelina, Permatasari, 2021). Postpartum mothers who have no prior experience in giving birth and raising children require a great deal of assistance from their closest relatives to help them navigate through this period. The type of assistance needed by these mothers can include information related to how to carry out self-care after giving birth.

CONCLUSIONS AND SUGGESTIONS

The results of this study lead to the conclusion that there is a relationship between supporting factors, such as knowledge, education, and family support, with postpartum danger signs in postpartum mothers at the Anny Rahardjo Clinic. However, the age factor does not show a significant relationship with puerperal danger signs during the puerperium.

These findings are expected to contribute to the improvement of the quality

of health services, especially antenatal care services, by enhancing counseling about postpartum danger signs. Utilizing interesting media, such as electronic media with video learning, can be an effective approach to educate and inform mothers about postpartum danger signs.

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