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RELATIONSHIP BETWEEN CHARACTERISTICS AND KNOWLEDGE OF POSTPARTUM MOTHERS REGARDING POSTPARTUM DANGER SIGNS IN THE JUWANA HEALTH CENTER

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ABSTRACT

Background: The puerperium is the period immediately after childbirth until the physiological tools of the uterus are restored to the pre-pregnancy state, which lasts 6-8 weeks. This study aimed to determine the relationship between the characteristics of age, education, and occupation with postpartum mothers' knowledge of postpartum danger signs in Juwana Health Center Area, Pati Regency. **Methods:** This study used a quantitative method with correlation analysis, and *total sampling* and the sample was 51 respondents. **Results:** The results showed that the majority of respondents had good knowledge about puerperal danger signs as many as 29 respondents (56.9%). The results of the chi square test analysis showed that there was a relationship between the characteristics of age, occupation, and education with knowledge of puerperal danger signs in the Juwana Health Center Area, Pati Regency with a p value = 0.001 <0.05. **Conclusion:** There is a relationship between the characteristics of age, occupation, and education with knowledge of puerperal danger signs in the Juwana Health Center Area, Pati Regency. This study can provide information and increase knowledge for mothers about danger signs that may occur during the postpartum period and can detect if danger signs occur.

Keywords: Age, Education, Occupation, Knowledge of Postpartum Danger Signs

Introduction

The postpartum period is immediately after giving birth until the physiology of the reproductive organs recovers to their pre-pregnancy state, which lasts for 6-8 weeks. The postpartum period can also be referred to as the period from the birth of the placenta to the return of the uterus to its pre-pregnancy state. Self-care during the postpartum period is necessary because women experience many physical and physiological changes during the postpartum period. Postpartum services must be carried out during that period to meet the needs of the mother and baby, which include prevention, early detection, and treatment of complications and diseases that may occur ⁽⁴⁾.

The purpose of postpartum care is to prevent the occurrence of postpartum danger signs, from this prevention, it is hoped that the signs of postpartum danger can be known and recognized early so that if there are danger signs, they can be immediately detected and treated. Efforts to prevent postpartum danger signs can be carried out by increasing the mother's knowledge of the danger signs that can occur during the postpartum period.

The World Health Organization (WHO) explains that the Maternal Mortality Rate (MMR) is a component of the quality of life index and development index of a country. Until now, MMR is still a problem in the world ⁽¹⁶⁾.

MMR in Indonesia collected from family health program records at the Ministry of Health increases every year. In 2021 there were 7,389 cases. MMR based on data from the Central Java Health Office in 2022 decreased from a maternal mortality rate of 526 cases, which initially in 2021 were 1011 maternal deaths to 485 maternal deaths. Most maternal deaths occur during the postpartum period, amounting to 62.27 percent of maternal deaths, or 50 per 100,000 live births. The highest causes of maternal death in Central Java are; hypertension 36.6%, bleeding 22.5%, blood circulation disorders 8.7%, and others 23.5%.

Maternal Mortality Rate Based on the Pati Regency Health Office in 2022, there were 13 cases of maternal death. The highest number of maternal deaths occurred during the postpartum period, namely 8 cases that occurred in various health centers in Pati, one of which was the Juwana Health Center with the highest number of maternal deaths, namely 4 cases ⁽⁸⁾.

The results of a preliminary study conducted by researchers at the Juwana Health Center found that 4 cases of maternal death at the Juwana Health Center occurred during the postpartum period, 2 of which were due to lack of knowledge so that the handling and actions taken were late when experiencing postpartum danger signs, which occurred in the case at the Juwana Health Center, namely, the postpartum mother experienced symptoms of chest pain and shortness of breath but did not immediately check with a health worker and just let it be because it was considered normal. Due to the lack of knowledge of the postpartum mother about postpartum danger signs, the mother was treated too late which resulted in death.

Based on previous research, it was stated that there are still many conditions in society, especially postpartum mothers, who do not know for sure about postpartum care regarding postpartum danger signs ⁽⁴⁾. Research conducted by Siti Erniyati Berkah Pamuji in 2019 explained that factors that can influence postpartum mothers' knowledge of postpartum danger signs include age, education, occupation, childbirth experience, exposure to information, environment, socio-economic, and socio-cultural ⁽⁹⁾. According to a study entitled The Influence of Postpartum Health Education on Mothers' Knowledge of Postpartum Mothers' Self-Care Abilities in 2022, the results showed that there was an influence between postpartum health education on mothers' knowledge of postpartum care abilities⁽¹⁰⁾.

Providing information about the danger signs of the postpartum period that mothers should receive during pregnancy is a form of prevention or preventive action that can help mothers know what risks can occur during the postpartum period so that mothers can maintain their health.

Based on this background, the researcher is interested in conducting a study entitled The Relationship between Characteristics and Knowledge of Postpartum Mothers Regarding Postpartum Danger Signs in the Juwana Health Center Area, Pati Regency.

Methods

This type of research used quantitative, correlation analysis. Data collection can use research instruments and statistical data analysis. This research was the Juwana Health Center, Pati Regency with a population of 51 postpartum mothers. The sampling technique in this study used the total sampling technique with inclusion criteria of postpartum mothers willing to participate and having a KIA book. And data analysis using chi square statistical test

Results and Discussion

A. Research result

1. Respondent Characteristics

Respondent characteristics are grouped into 3 parts as seen in the table below.

Table 4.1 1distribution of characteristics of postpartum mothers' respondents in the Juwana Health Center area, Pati Regency

No	Characteristics	Frequency	Percentage (%)
Age			
1	Late Adolescence (17-25 Years)	12	23.5
2	Early Adulthood (26-35 Years)	26	51.0
3	Late Adulthood (36-45 Years)	13	25.5
Amount		51	100
Education			
1	Base	16	31.4
2	Intermediate	19	37.3
3	Tall	16	31.4
Amount		51	100
Work			
1	Work	27	52.9
2	Doesn't work	24	47.1
Amount		51	100

The results of the study showed that most of the respondents were postpartum mothers in the Juwana Health Center Area, Pati Regency. In the age category, the majority were in the Early Adulthood age category consisting of 26 to 35 years of age, as many as 26 respondents (51.0%). In the education category, the majority of the categories were Senior High School (SMA) which amounted to 19 respondents (37.3%). In the occupation category, the majority of respondents were working, with as many as 27 respondents (52.9%). Age is a respondent characteristic that can differentiate a person's level of knowledge and maturity. Age can also influence a person's level of knowledge or insight. The older a person is, the more mature their level of maturity and strength will be in thinking and working. In society, a more mature person will be more trusted by someone than someone who is not yet mature.

At the age of 26-35 years, the age group that has the best knowledge at that age is a healthy reproductive age because the function of the reproductive organs is mature and from a psychological aspect they are ready for pregnancy and childbirth process, this is because respondents already know about a healthy reproductive age so that at that age respondents find it easier to accept knowledge about the danger signs of the postpartum period ⁽¹¹⁾. The large number of respondents in this study who had secondary education can be understood because there is an obligation for society to obtain or complete education up to the secondary level. At this level of education, it is possible to influence the level of knowledge of the respondents in this study because this knowledge can be obtained formally which results in individuals having a mindset and behavior by the education they have received.

Education is also an effort by someone to develop personality and abilities both inside and outside of school and lasts throughout a person's life. The Bette a

person's education, the easier it is for them to acquire and fulfill knowledge. ⁽¹²⁾.

The level of knowledge can be the main guarantee in influencing a person's knowledge ⁽¹¹⁾ because through education a person gains knowledge that can be applied in his life. With education, a person will also have broad knowledge. The higher a person's level of education, the broader the insight and knowledge they have.

The level of Job Characteristics.

Based on the analysis of the research data, it is known that most respondents, 27 respondents (52.9%) have jobs as private employees, teachers, ASN, and private employees, shopkeepers, self-employed, traders, factory employees, brass, and analysts. If associated with work, most of them, 27 (52.9%) of respondents work.

Work is a necessity that must be fulfilled, especially to support family needs. It often consists of time-consuming tasks that can yield both direct and indirect experience and knowledge. The work environment cultivates knowledge through the exchange of information among coworkers.

A person's job will describe the activity and level of economic welfare obtained. A person who works makes a big contribution to the welfare of the family because the better the job, the greater the income and the better the welfare of the family.

Based on the results of the study on the characteristics of work and knowledge of postpartum mothers about postpartum danger signs, it can be concluded that respondents in the Juwana Health Center Area, Pati Regency, on average have activities outside the home, namely working, this can affect a person's knowledge because it is easier to receive important information from outside and inside the job ⁽¹³⁾.

2. Knowledge

Table 4. 2 Frequency Distribution of Knowledge of Postpartum Mother Respondents in the Juwana Health Center Area, Pati Regency

No	Knowledge	Frequency	Percentage %
1	Lack of Knowledge (Score 1-10)	22	43.1
2	Good Knowledge (Score 11-20)	29	56.9
Total		51	100

The results of the study showed that the majority of respondents had poor knowledge, as many as 22 respondents (43.1%), less than the respondents who had good knowledge, as many as 29 respondents (56.9%). The knowledge of postpartum mothers about postpartum danger signs is limited to only a little about postpartum danger signs, so there are still many postpartum mothers who still do not understand and know about postpartum danger signs such as the definition of the postpartum period, signs, and symptoms of postpartum danger signs to the treatment that must be done if postpartum danger signs occur.

This is consistent with the idea ⁽¹²⁾ which states that knowledge comes from sight, hearing, smell, touch, and taste. The knowledge in this study is the knowledge of postpartum mothers about postpartum danger signs consisting of the definition of the postpartum period, the purpose of postpartum care, signs and symptoms of the postpartum period, and how to handle postpartum danger signs.

2. Bivariate Analysis

a. Relationship between Age Characteristics and Knowledge

Table 4.3 Relationship between age characteristics and knowledge of postpartum mothers in the Juwana Health Center Area, Pati Regency

Category Age	Knowledge				N	%	P Value
	Not enough		Good				
	N	%	N	%			
Late Adolescenc e (17-25 years)	10	45.5	2	6.9	12	23.5	
Early Adulthood	5	22.7	21	72.4	26	51.0	0.001

(26 -35 years)						
Late Adulthood (36-45 years)	7	31.8	6	20.7	13	25.5
Total					51	100

chi square test in the age category, there are still many respondents who have less knowledge as many as 10 respondents (45.5%) in the early adolescent age category (17-25 years). While in early adulthood (26-35 years) as many as 5 respondents (22.7%) have less knowledge. Or this number is smaller than in the late adult category (36-45 years) who have less knowledge than as many as 7 respondents (31.8%).

In the late adolescent age category (17-25 years) who have good knowledge as many as 2 respondents (6.9%) while in the early adult age category (26-35 years) as many as 21 respondents (72.4%) have good knowledge. This number is greater than the late adult age category (36-45 years) as many as 6 respondents (56.9%) have good knowledge.

The *chi-square* statistical test obtained a significance figure of $p\text{-value} = 0.001$ lower than 0.05 or $p\text{-value} < \alpha$, so the H_0 hypothesis is accepted, meaning that there is a significant relationship between age characteristics and knowledge of postpartum mothers about postpartum danger signs in the Juwana Health Center Area, Pati Regency.

This study is in line with research ⁽⁹⁾ which states that the more mature a person is, the more opportunities and time they will have to obtain information and knowledge.

At a mature age, the function of the reproductive organs is ready and it can be seen that the majority of respondents who have good knowledge are in early adulthood (26-35 years) where at that age their psychological aspects are ready for pregnancy process, because at that age they already know about healthy reproductive age.

The older a person is, the more knowledge they have because a person's

knowledge can increase. After all, it is supported by experience and information obtained. So young or old people may know more about the danger signs of postpartum, depending on their self-awareness to be able to receive knowledge and information that can come from sources of information such as books and electronic media ⁽¹⁴⁾.

b. Relationship between Characteristics of Education and Knowledge

Table 4.4 Relationship between Educational Characteristics and Postpartum Mothers' Knowledge of Postpartum Danger Signs in the Juwana Health Center Area, Pati Regency.

Education	Knowledge				N	%	P Value
	Not enough		Good				
	N	%	N	%			
Base	13	59.1	3	10.3	16	31.4	
Intermediate	7	31.8	12	41.4	19	37.3	0,000
Tall	2	9.1	14	48.3	16	31.4	
Total					51	100	

Chi-square test in the education category, it was found that there were still many respondents who had insufficient knowledge, as many as 13 respondents (59.1%) in the basic education category which was dominated by junior high school (SMP) education. While in the secondary education category, there were 7 respondents (31.8%) who had insufficient knowledge, this number was greater than in the higher education category, with as many as 2 respondents (9.1%) who had insufficient knowledge.

In the basic education category, there were 3 respondents (10.3%) who had good knowledge, while in the secondary education category, there were 12 respondents (41.4%) who had good knowledge. This number is smaller than in the higher education category where there were 14 respondents (48.3%) who had good knowledge.

The results of the statistical test using the *chi-square test*, which obtained a significance figure of 0.000 or $p\text{-value} < \alpha$

0.05, then H_a was accepted, which means there is a significant relationship between education with postpartum mothers' knowledge of postpartum danger signs in the Juwana Health Center Area, Pati Regency. The relationship between educational characteristics and postpartum mothers' knowledge of postpartum danger signs in the Juwana Health Center area, Pati Regency.

Based on the study, the statistical results obtained $p\text{ value } 0.000 < 0.05$, which means that there is a relationship between educational characteristics and postpartum mothers' knowledge of postpartum danger signs. According to⁽¹²⁾ the higher a person's education, the easier it will be to accept and develop knowledge and technology.

Education is a process of changing the attitudes and behavior of a person or group and also an effort to mature humans through teaching and training, so it can be concluded that the goal of education is to make someone smarter.

Higher education can influence the mother's knowledge about the danger signs of postpartum because someone who has a higher education is on average more receptive to knowledge or input from any party, especially from health workers, compared to mothers who have basic education, who sometimes find it difficult to accept information about health, especially about the danger signs during the postpartum period⁽¹³⁾

c. Relationship between Job Characteristics and Knowledge

Table 4. 5 Relationships Job Characteristics With Postpartum Mothers' Knowledge About Postpartum Danger Signs in the Juwana Health Center Area,

work	Knowledge				N	%	PValue
	Not enough		Good				
	N	%	N	%			
Work	5	22.7	22	75.9	2	52.0	0,000
Doesn't work	17	77.3	7	24.1	2	47.0	
Total		3		4	5	10.0	

chi-square test on the job category, it was found that the respondents who had less knowledge were 5 respondents (22.7%), this number is smaller than the category of respondents who did not work, which was 17 respondents (77.3%), who were dominated by housewives.

In the working category, there were 22 respondents (75.9%) who had good knowledge. This number was greater than the number of respondents who had good knowledge in the unemployed category, which was 7 respondents (24.1%).

The results of the statistical test using the *chi-square test* obtained significant results, namely 0.000 or $p\text{-value} < \alpha 0.05$, so H_a is accepted, which means that there is a significant relationship between work and postpartum mothers' knowledge of postpartum danger signs in the Juwana Health Center Area, Pati Regency. Based on the statistical results, the $p\text{-value}$ was 0.000 < 0.05, which means that there is a relationship between job characteristics and postpartum mothers' knowledge of postpartum danger signs.

According to⁽¹²⁾, someone who works will have better and broader knowledge than someone who does not work, because by working, someone will have a lot of information and experience from coworkers.

By working, it will be easier for someone to receive information and sort the information received so that it influences a person's knowledge.

This study is in line with⁽¹⁵⁾ that there is a relationship between job characteristics and knowledge of postpartum danger signs, work is an activity that is carried out daily, in all fields of work and generally requires a relationship between a person and others, work can also describe a person's level of life including in health maintenance. This can be stated that work can play a role in a person's knowledge.

Conclusion

Based on the research results obtained, the following conclusions can be drawn: there is

relationship between the characteristics of age, occupation, and education with knowledge of puerperal danger signs in the Juwana Health Center Area, Pati Regency with a *p-value* = 0.001 (*p-value* <0.05). The result of this study provides the midwives to emphasize to the postpartum women to go to a health facility immediately if they show any signs of danger in the postpartum period.

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