Relationship Between Knowledge And Anxiety Of Primiparous Postpartum Mothers In Newborn Care

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Abstract.*The suboptimal handling and care of newborns are among the factors contributing to perinatal mortality. One of the reasons for the suboptimal handling and care of newborns is the lack of knowledge among mothers about newborn care, especially among primiparous mothers who lack direct experience in caring for newborns. This situation leads to maternal anxiety during the first week of the baby's life. The objective of this study is to determine the relationship between knowledge and anxiety among primiparous postpartum mothers in the care of newborns at the North Buton Regional General Hospital. The research design used is analytical, employing a Cross-Sectional study approach with a sample size of 30 postpartum mothers. Data collected include both primary and secondary sources, and the data analysis involves the chi-square statistical test. The research results indicate a correlation between maternal knowledge and anxiety among primiparous postpartum mothers in the care of newborns, with a p-value of $0.003 < \alpha = 0.000$. Consequently, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted. In other words, there is an influence of knowledge on the anxiety levels of first-time postpartum mothers in the care of newborns at the North Buton Regional General Hospital.*

Keywords: Knowledge, Newborn, Anxiety, Primiparous.

BACKGROUND

The postpartum period, or postpartum phase, is the time after a baby is born until the recovery of the reproductive organs, similar to the state before pregnancy, typically spanning up to six weeks. The postpartum period is a time for adapting to physical and psychological changes and for nurturing the mother's role in the care of her newborn on a day-to-day basis following birth (Widyasih et al., 2012).

A newborn is an individual undergoing growth and adjustment from intrauterine life to extraterrestrial life. As a result, appropriate care is essential (Dewi, 2012). The infancy stage is one of the most critical phases of life, requiring parents to possess adequate knowledge and skills for the care of newborns, especially those who are just born. Given the significance of infant health, it is crucial to educate primiparous mothers about correct newborn care techniques and principles. Newborns are highly vulnerable to the new environment around them during this phase. This is where parental involvement in child

care becomes crucial. Health education awareness is pivotal and should be heightened within every family and community member. Family and community roles can be realized when health information is sufficiently available (Anjani, A. D., 2016).

One indicator of public health is the infant mortality rate (IMR). Out of the 8.1 million annual infant deaths, about half occur during the neonatal period, which is the first month of life. Every year, there are four million neonatal deaths worldwide, with two-thirds occurring within the first week of life. The perinatal mortality rate serves as a reference for assessing the success of perinatal healthcare services. Birth is also risky for infants; newborns may die or suffer disabilities due to poor maternal health, inadequate pregnancy care, improper handling, subpar hygiene during birth, and a lack of knowledge among healthcare professionals, mothers, and families regarding newborn care (Widyastuti, 2018).

Different individuals hold distinct perspectives when facing the critical hours immediately following birth, leading to varied responses. For primiparous mothers, having a baby is their first experience, often inducing fear and anxiety. Intense anxiety in primiparous mothers during these crucial hours after birth can hinder their ability to adapt, resulting in quick temper, confusion, and heightened sensitivity due to a lack of knowledge in newborn care, particularly among primiparous mothers (Hawari, 2019).

Neonatal healthcare should begin before birth, through services provided to pregnant mothers. Preventive measures against factors weakening the condition of pregnant mothers, such as poor nutrition, anemia, short interpregnancy intervals, and inadequate hygiene, need prioritization. Adequate prenatal health guidance and interventions against factors causing perinatal death, including bleeding, hypertension, infection, preterm birth/low birth weight, asphyxia, and hypothermia, are also essential. Additionally, counseling for pregnant mothers regarding newborn care is vital (Saifuddin, 2017).

The inadequate handling and care of newborns are among the factors contributing to perinatal mortality. The suboptimal handling and care of newborns, including the lack of knowledge among primigravida mothers who lack direct experience in newborn care, particularly in the case of primiparous mothers, lead to maternal anxiety during the first week of the baby's life. Research by Diah, H.T. (2018) indicates a significant relationship between knowledge levels and postpartum maternal anxiety in newborn care. Anxiety disturbances commonly experienced by primiparous mothers arise from the inability and unreadiness to care for a newborn who requires special care during the initial weeks after birth, as a natural defense mechanism when facing threats or dangers.

However, such anxiety is typically relative, meaning some individuals become

anxious but regain calm after receiving support from those around them. Conversely, some individuals continue to experience constant anxiety even with support from others. Anxiety in primiparous mothers is often associated with concerns about dealing with situations that were not previously a source of worry. This anxiety can stem from feeling helpless in caring for their newborn, especially when it's a new experience for them. Moreover, they realize that becoming a mother implies additional responsibilities, potentially affecting their self-esteem as women. This situation raises concerns about its impact on their relationship with their spouse and social environment (Lukarningsih, 2018).

Based on the aforementioned context, the author is intrigued to conduct research on "The Relationship Between Knowledge and Anxiety Among Primiparous Postpartum Mothers in the Care of Newborns at the North Buton Regional General Hospital".

RESEARCH METHODS

The type of research used is an analytical study with a Cross-Sectional study approach, aiming to explore the Relationship Between Knowledge and Anxiety Among Primiparous Postpartum Mothers in the Care of Newborns at the North Buton Regional General Hospital. The study population includes all primiparous postpartum mothers receiving care at the North Buton Regional General Hospital. The sample size for this study is 30 individuals. The sampling technique employed in this research is Total Sampling, where all members of the population are included as the sample (Sugiyono, 2018). The instruments used in this study consist of a questionnaire focused on assessing knowledge about the care of newborns, comprising 15 questions, and a questionnaire designed to measure the level of anxiety using the HRSA instrument, which contains 14 items. The research findings will be analyzed using chi-square statistical analysis.

RESULTS AND DISCUSSION

RESULTS
Univariate Analysis

The results of the univariate analysis are presented in the following tables:

Table 1. Frequency Distribution of Respondent Characteristics

Respondent Characteristics	N	Frequency	Percentage (%)
Age	< 20 years old	3	10%
	20- 35 years old	23	76,7%
	> 30 years old	4	13,3%
Total		**30**	**100%**
Education	Primary School	2	6,7%
	Junior High School	8	26,7 %
	High School	16	53,3 %
	College Degree	4	3,3%
Total		**30**	**100%**

Based on Table 1, it is clear that the provided data elucidates the distribution of ages and educational backgrounds among the respondents. The majority of participants, amounting to 23 individuals (76.7%), fall within the 20-35 age range, while high school education stands out as the predominant educational attainment among the respondents, accounting for 16 individuals (53.3%).

Table 2. Level of Anxiety Among Primiparous Mothers in the Care of Newborns at North Buton Regional General Hospital

Knowledge Level	f	%
Good	8	26,7
Adequate	13	43,3
Poor	9	30
Total	**30**	**100**

Based on Table 2, it is evident that the majority of respondents at the North Buton Regional General Hospital possess adequate knowledge regarding newborn care. Out of the 30 postpartum mothers in the study, 13 (43.3%) have adequate knowledge, 9 (30%) have poor knowledge, and 8 (26.7%) have good knowledge of newborn care.

Table 3. Level of Anxiety Among Primiparous Mothers in the Care of Newborns at North Buton Regional General Hospital

Anxiety Level	f	%
Good	10	33,3

Adequate	15	50
Poor	5	16,7
Total	**30**	**100**

Based on Table 3, the majority of postpartum mothers in the care of newborns at the North Buton Regional General Hospital experience a moderate level of anxiety. Out of 30 participating postpartum mothers, 15 (50%) experience moderate anxiety, 10 (33.3%) experience mild anxiety, and 5 (16.7%) experience severe anxiety.

Bivariate Analysis

Bivariate analysis is performed to examine the relationship between two variables. The aim of bivariate analysis is to determine the association between the independent (categorical) variable and the dependent (categorical) variable. In this study, bivariate analysis is conducted using the Chi-Square test to determine if there is a significant relationship between knowledge and anxiety among primiparous postpartum mothers in the care of newborns at the North Buton Regional General Hospital. The results of the bivariate analysis are presented in the table below:

Table 4. Relationship Between Knowledge and Anxiety Among Primiparous Postpartum Mothers at North Buton Regional General Hospital

Knowledge	Anxiety						Value
	Mild	**%**	**Moderate**	**%**	**Severe**	**%**	
Good	4	13,3	4	13,3	0	0	
Adequate	6	20	7	23,4	0	0	**0,003**
Poor	0	0	4	13,3	5	16,7	
Total	**10**	**33,3**	**15**	**50**	**5**	**16,7**	

Table 4 indicates that the majority of respondents (postpartum mothers) at the North Buton Regional General Hospital with good knowledge experience mild anxiety. Out of 8 postpartum mothers with good knowledge, 4 (13.3%) experience mild anxiety, 4 (13.3%) experience moderate anxiety, and none experience severe anxiety. Meanwhile, postpartum mothers with adequate knowledge predominantly experience moderate anxiety. Out of 13 postpartum mothers with adequate knowledge, 7 (23.3%) experience moderate anxiety, 6 (20%) experience mild anxiety, and none experience severe anxiety. As for postpartum mothers with poor knowledge, the majority experience severe anxiety. Out of 9 postpartum mothers with poor knowledge, 5 (16.7%) experience severe anxiety, 4 (13.3%) experience moderate anxiety, and none experience mild anxiety.

Statistically, using Chi-Square (X^2) analysis at a 95% confidence level, it is evident

that there is a significant relationship between knowledge and anxiety among primiparous postpartum mothers in the care of newborns at the North Buton Regional General Hospital, as indicated by a p-value of $0.003 < \alpha = 0.05$.

DISCUSSION

The research findings indicate a significant relationship between maternal knowledge and the anxiety levels of primiparous postpartum mothers in newborn care, with a p-value of $0.003 < \alpha = 0.000$. Consequently, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted. The study highlights the crucial link between maternal knowledge and anxiety levels experienced by first-time mothers caring for newborns. The majority of participants exhibited a moderate level of anxiety. Moreover, the results suggest that mothers with higher knowledge levels tend to experience lower anxiety levels. This underscores the importance of adequate knowledge in alleviating anxiety and ensuring effective newborn care. As a result, healthcare providers should prioritize enhancing maternal knowledge through education and support, ultimately leading to reduced anxiety levels and improved practices in infant care.

The postpartum period often proves to be a highly anxious time for women who are becoming mothers for the first time. This is because they are required to breastfeed and care for their newborns. Newborn care is crucial and beneficial for both the mother and the baby. It helps in the swift recovery of the mother's body, which undergoes changes during pregnancy, and fosters the nurturing bond between the mother and the baby (Sulistyawati, A., 2019).

The birth of a child presents a fundamental challenge to the established structure of family interactions and also to the care of the newborn. When a baby is born, a new mother might feel bewildered about how to care for the infant. Even routine tasks like changing diapers and dressing the baby can cause anxiety, especially if the mother has never spent time on such matters before. Birth also marks the initial stages of the parent-child relationship. After ensuring the health of both mother and baby, parental privacy becomes crucial for talking, touching, and spending alone time with the baby (Marmi and Rahardjo, K., 2012).

However, sometimes parents experience anxiety during the process of caring for a child, particularly in the early stages after childbirth, as mothers need to adapt to new situations different from their prior routines (Dennis, FalahHassani, & Shiri, 2017). This

anxiety can lead to discomfort such as mood changes. Therefore, mothers must adapt to avoid succumbing to anxiety (Budiyarti & Makiah, 2018).

Anxiety is a feeling that might be challenging to express in words but is apparent through various body gestures. Postpartum mothers experiencing anxiety might appear helpless and feel an unclear sense of worry. Feelings of guilt resulting from certain actions can induce anxiety in individuals (Jenny, 2013). Anxiety is an emotional response, encompassing feelings of worry and restlessness due to threats or uncertainties (Solehati, Tetti Kosasih, 2015). As much as 18-70% of postpartum mothers in Indonesia experience anxiety, a rate higher than the fact stated by the World Health Organization (WHO) that the prevalence of maternal anxiety worldwide is around 3.6% (Rahmawati, 2016).

Research results indicate that the majority of postpartum mothers receiving care for newborns at North Buton Regional General Hospital experience a moderate level of anxiety. Among the 30 postpartum mothers who participated, 15 (50%) experience moderate anxiety, 10 (33.3%) experience mild anxiety, and 5 (16.7%) experience severe anxiety. Children born to mothers with anxiety disorders face an increased risk of adverse outcomes during childhood, including difficult temperament, emotional and behavioral problems, cognitive difficulties, and the development of anxiety disorders and other psychopathologies later in life (Newman, Judd, & Komiti, 2017).

This level of anxiety indicates emerging concerns among primiparous postpartum mothers about their readiness to care for their newborns. These concerns are influenced by various factors, one of which is the level of the mothers' knowledge about newborn care. Research results show that the majority of respondents at North Buton Regional General Hospital have a fair knowledge of newborn care. Among the 30 postpartum mothers who participated, 13 (41.18%) have adequate knowledge, 9 (30%) have insufficient knowledge, and 8 (26.7%) have good knowledge of newborn care. The Chi Square analysis (X^2) at a significance level of 95% indicates a significant relationship between knowledge and anxiety among primiparous postpartum mothers in the care of newborns at the hospital, marked by a value of $p = 0.003 < \alpha = 0.05$. This result implies that the high level of anxiety among postpartum mothers at North Buton Regional General Hospital is due to the prevalence of low knowledge levels, leading to anxiety about newborn care.

A mother must possess adequate knowledge for proper newborn care. Knowledge plays a vital role in a mother's caregiving behavior. A mother's understanding of daily newborn care forms a deep foundation. This understanding serves as the basis for effective

and accurate daily care. Proper knowledge or cognitive understanding plays a crucial role in shaping an individual's actions. Adequate and accurate knowledge about daily newborn care is expected to enhance infant health and subsequently reduce infant mortality and morbidity rates (Notoatmodjo, S., 2017).

Based on this research, knowledge is crucial in daily newborn care. If an individual possesses sound knowledge of daily newborn care, their caregiving actions will also be commendable. Consequently, primiparous postpartum mothers with both fair and insufficient knowledge of daily newborn care require serious attention, especially from healthcare professionals such as midwives, through promotive and preventive efforts. This can be achieved through knowledge dissemination, information sharing, and providing leaflets to postpartum mothers about daily newborn care.

Therefore, one effective strategy for primiparous postpartum mothers to minimize anxiety levels in newborn care is to enhance their knowledge of newborn care.

CONCLUSION

Based on the research findings, it can be concluded that the analysis of the data using the chi-square test yielded a P value of 0.003, while the α value was 0.05. Since the P value $< α$, the null hypothesis (H_o) is rejected, and the alternative hypothesis (H_a) is accepted. This signifies a significant relationship between maternal knowledge and anxiety among primiparous postpartum mothers in the care of newborns at the North Buton Regional General Hospital. It is recommended for pregnant mothers to enhance their knowledge regarding the importance of newborn care to effectively care for their infants after childbirth. Moreover, healthcare providers are encouraged to implement comprehensive, specific, and efficient techniques in their services by conducting educational sessions on newborn care.

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