

The Effectiveness of the Newborn Care Education Program on the Anxiety of Primiparadi Mothers at Tengku Peukan Regional General Hospital, Southwest Aceh Regency

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ABSTRACT

The neonatal period is the most critical phase of a baby's life, so it requires optimal care. Primipara mothers often experience anxiety in caring for newborns due to a lack of knowledge and experience. This condition can affect the quality of baby care and the success of the mother's adaptation process in carrying out her new role. Therefore, interventions in the form of educational programs are needed to increase knowledge and reduce maternal anxiety. To determine the effectiveness of the newborn care education program on maternal anxiety at the Tengku Peukan Regional General Hospital, Southwest Aceh Regency. This study is a quantitative research with a cross-sectional design. Data collection was carried out from February to March 2026. The population in this study was all mothers who had 54 newborns, with a sampling technique using total sampling. The research instrument used a questionnaire on the level of anxiety of primipara mothers. Data analysis was carried out univariate and bivariate using the Wilcoxon Signed Rank Test. The results showed that before being educated, most mothers experienced mild anxiety (53.70%) and moderate anxiety (24.07%). After being educated, there was a decrease in anxiety with the majority of respondents in the categories of not anxious (51.85%) and mild anxiety (33.33%). The results of the Wilcoxon test showed a p-value of 0.000 ($p < 0.05$) which means there is a significant difference. Conclusion: The newborn care education program is effective in reducing the anxiety

level of primitive mothers at Tengku Peukan Hospital. Suggestion: It is hoped that health workers can increase the provision of education on newborn care systematically and continuously as part of postnatal services to increase maternal readiness in caring for babies.

Keywords: Education, Newborns, Anxiety, Primitive Mothers

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INTRODUCTION

Low Birth Weight (LBW) is still a significant public health problem globally. The World Health Organization (WHO) defines BBLR as a baby born weighing less than 2,500-grams regardless of gestational age. WHO reports that around 20 million babies in the world are born with BBLR each year, and this condition contributes to the high rates of neonatal morbidity and death, especially in developing countries (WHO, 2023). UNICEF emphasizes that BBLR is an important indicator of maternal health status during pregnancy and reflects the quality of maternal health services and maternal nutritional adequacy (UNICEF, 2023).

The neonatal period is the most critical phase in the human life cycle, especially in the first 28 days after birth. During this period, babies undergo a complex physiological adaptation process to life outside the womb, so they need optimal and continuous care. The World Health Organization (WHO) emphasized that the quality of newborn care has an important role in reducing neonatal morbidity and mortality globally (WHO, 2022). One of the Sustainable Development Goals (SDGS) targets for 2030 is to reduce the neonatal mortality rate to 12 per 1000 live births and the infant mortality rate of up to 25 per 1000 live births (BAPPENAS, 2023). To reduce infant mortality, the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) recommend mothers to breastfeed their babies optimally, namely by providing guidance and encouragement to mothers to succeed in initiating early breastfeeding (IEB), breastfeeding exclusively (only breastfeeding until the age of 6 months), and continuing breastfeeding until the age of 2 years or more accompanied by appropriate complementary foods (WHO, 2023).

The WHO reports that more than 2.3 million neonatal deaths occur each year in the world, and most of those deaths can actually be prevented through proper newborn care, including basic care practices, early and exclusive breastfeeding, and education to mothers and families (WHO, 2023). Therefore, WHO emphasizes the importance of postnatal services that focus not only on the clinical aspects of the baby, but also on the psychological readiness of the mother in caring for her baby (WHO, 2022). Primitive mothers are a group that is vulnerable to experiencing postpartum psychological problems, especially anxiety, due to a lack of experience, knowledge, and skills in caring for newborns. WHO states that anxiety in postpartum mothers can affect the mother's ability to provide adequate care, hinder the success of breastfeeding, and disrupt the bonding process between mother and baby (WHO, 2022). This condition, if not handled properly, can have a negative impact on the physical and psychosocial health of the baby.

At the health service level, hospitals have a strategic role in the implementation of newborn care education programs, especially during postpartum hospitalization. Teungku Peukan Regional General Hospital as one of the referral health service facilities in Southwest Aceh Regency is expected to be able to provide comprehensive postnatal services, including education to primipara mothers as a promotive and preventive effort in reducing maternal anxiety and improving the quality of newborn care (Ministry of Health of the Republic of Indonesia, 2022)

Newborns or neonates are newborns who undergo the birth process, aged 0-28 days which requires physiological adjustment in the form of maturity, adaptation of life in the womb and outside the womb. Neonates or normal newborns are babies born with a gestational age of 37 weeks to 42 weeks with a birth weight between 2500-4000 grams, born crying, and no congenital defects (Nurul, 2023). At this time it is very important and requires special attention and care, and it is not uncommon for additional care to be needed, especially if there are abnormalities or disorders in the baby. This is understandable because at the time of birth, the newborn undergoes a number of adaptations. These babies need close monitoring to face the transition period from life in the womb to life outside the womb (Chairunnisa & Juliarti, 2022).

The role of anthropometry in reducing the Infant Mortality Rate (IMR) is very important. By regularly monitoring the baby's growth and development through anthropometry, health workers can detect early

abnormalities or health problems that can be risk factors for infant death. Thus, appropriate medical or nutritional interventions can be provided before the baby's condition worsens, thus significantly reducing infant mortality (Sangapta et al., 2019). Given the strong role of anthropometry in monitoring the growth and health of newborns, it can be expected that these efforts will help in lowering infant mortality globally (Sangapta 2019).

As a form of strengthening maternal and infant health services, the Ministry of Health of the Republic of Indonesia stipulates that postnatal services must be accompanied by structured and continuous newborn care education. The education includes cord care, keeping the baby warm, proper breastfeeding practices, and the introduction of newborn danger signs. The provision of this education aims to improve mothers' knowledge, skills, and confidence, so that they can reduce anxiety levels and improve the quality of baby care at home (Ministry of Health of the Republic of Indonesia, 2023). Aceh Province faces significant challenges in maternal and child health, including in the neonatal period — the most vulnerable stage of life and determines the quality of a child's long-term health. According to the 2024 Aceh Provincial Health Statistics document released by the Aceh Central Statistics Agency on February 18, 2024, this publication presents an overview of the health conditions of the people of Aceh, including the problems of pregnant women, infants, toddlers, and health service patterns in the province (BPS Aceh, 2024).

At the health service level, hospitals have a strategic role in the implementation of newborn care education programs, especially during postpartum hospitalization. Teungku Peukan Regional General Hospital as one of the referral health service facilities in Southwest Aceh Regency is expected to be able to provide comprehensive postnatal services, including education to primipara mothers as a promotive and preventive effort in reducing maternal anxiety and improving the quality of newborn care. The mother's inability to take care of a normal newborn is most likely influenced by several factors, including knowledge, education, socio-culture, employment, the role of health workers (nurses or midwives), family role motivation and socio-economy. The mother's inability to adequately care for a normal newborn is likely influenced by a combination of interrelated factors, including limited knowledge and education, which may hinder her understanding of proper newborn care practices.

METHOD

The type of research used in this study is quantitative. Quantitative research is a research method that uses data in the form of numbers and statistical analysis to test hypotheses and explain the relationships between variables (Sugiyono, 2019). The research design used is cross-sectional with ethical principles (usman Chairul, 2017) in (Huda, C. 2017). an observational approach that measures independent and dependent variables simultaneously at a single observation time to determine the relationship between risk factors and effects (Sugiyono, 2019).

This research was carried out at the Tengku Peukan Regional General Hospital. The selection of the research location was based on the consideration that there has never been a study on the effectiveness of the newborn care education program on the anxiety of primipara mothers in the hospital. The time for the research was carried out from February to March 2026. The population in this study is all mothers who have newborns at the Tengku Peukan Regional General Hospital in 2026, with a population of 54 people. The sampling technique used is total sampling, which is a sampling technique in which all members of the population who meet the inclusion criteria are used as research samples (Huda & Waluyo, 2022).

The inclusion criteria in this study included mothers who had newborns, mothers who came to the Tengku Peukan Regional General Hospital, mothers who lived in the region, and mothers who were willing to become respondents. Meanwhile, the exclusion criteria include mothers who are not present at the time of data collection, mothers who have communication disorders, and mothers who are experiencing emotional disturbances during the data collection process. After a selection based on inclusion and exclusion criteria, a number of respondents were obtained who were eligible to be used as samples in this study.

RESULTS AND DISCUSSION

This research was carried out at the Tengku Peukan Regional General Hospital (RSUD), Southwest Aceh Regency. This hospital is a referral health service facility that provides obstetric and neonatal services, including childbirth services and newborn care. Tengku Peukan Hospital has a strategic role in the implementation of postnatal services, especially

in providing newborn care education to primipara mothers during the hospital treatment period. Data collection was carried out from February to March 2026 by involving primitive mothers who had newborns and met the inclusion criteria that had been set.

Table 1. Distribution of Respondent Characteristics by Age

Features	Frequency (n)	Percentage (%)
Mother's Age (Years)		
≤ 20 Years	4	7,40
21 - 35 Years	27	50
> 35 Years Old	23	42,60
Quantity	54	100%

Data source: Processed by the author, 2026

Based on Table most of the respondents were in the age group of 20–35 years. This age group is a healthy reproductive age, but in primipara mothers, there is still a level of anxiety in caring for newborns due to limited experience.

Table 2. of Distribution of Respondents by Education

Education	Frequency (n)	Percentage (%)
Basic Education	6	11,11
Secondary Education	29	53,70
Higher Education	19	35,19
Quantity	54	100

Data source: Processed by the author, 2026

The respondents' education level was dominated by secondary education. Education affects the mother's ability to receive and understand health information, including newborn care education.

Table 3. Respondent Distribution by Occupation

Jobs	Frequency (n)	Percentage (%)
Housewives	35	64,81
Work	19	35,19
Quantity	54	100

Data source: Processed by the author, 2026

The majority of respondents have the status of housewives. This condition allows the mother to have more time with the baby, but in primipara mothers, anxiety is still found due to the lack of experience caring for newborns.

Table 4. of Distribution of Respondents by Length of Treatment

Duration of treatment (Days)	Frequency (n)	Percentage (%)
≤ 2 Days	8	14,81
3-4 Days	26	48,15
> 4 Days	20	37,04
Quantity	54	100

Data source: Processed by the author, 2026

Table 5. Distribution for Newborn Care Education Program

Education Programs	Frequency (n)	Percentage (%)
Given	37	68,52
Not given	17	31,48
Quantity	54	100

Data source: Processed by the author, 2026

Based on Table most of the respondents obtained newborn care education programs provided by health workers during the hospital treatment.

Table 6. Distribution of Anxiety Levels of Primipara Mothers Before Education

Anxiety Level	Frequency (n)	Percentage (%)
Not anxious	5	9,26
Mild anxiety	29	53,70
Moderate anxiety	13	24,07
Severe anxiety	7	12,96
Quantity	54	100

Data source: Processed by the author, 2026

Before being given education, most primipara mothers were in the category of mild to moderate anxiety. This anxiety is related to the mother's concern in caring for the newborn independently.

Table 7. Distribution of Anxiety Levels of Primipara Mothers After Education

Anxiety Level	Frequency (n)	Percentage (%)
Not anxious	28	51,85
Mild anxiety	18	33,33
Moderate anxiety	6	11,11
Severe anxiety	2	3,70
Quantity	54	100

After being given an educational program, there was a decrease in the level of anxiety in primipara mothers, which was shown by the increase in the number of respondents in the non-anxious and mildly anxious categories.

Table 8. Wilcoxon Signed Rank Test Results

Variabel	n	Z-Count	p-value
Anxiety before–after education	54	-6,214	0,000

Data source: Processed by the author, 2026

The results of the analysis using the Wilcoxon Signed Rank Test showed that there was a difference in the level of anxiety of primitive mothers before and after being given a newborn care education program. The p-value obtained showed statistically significant results ($p < 0.05$), so it can be concluded that the newborn care education program is effective in reducing the level of anxiety of primipara mothers.

DISCUSSION

The results showed that most of the respondents were in the age range of 21–35 years, which was 27 respondents (50%). This age range falls into the category of healthy reproductive age, where the mother is biologically in optimal condition for pregnancy and delivery. However, primipara mothers in this age group still experience anxiety in caring for newborns. This anxiety is more influenced by psychological factors, such as lack of experience in caring for babies, fear of making mistakes, and lack of confidence in carrying out the role of mother. In addition, 23 respondents (42.6%) of respondents over the age of 35 also showed anxiety influenced by concerns about the baby's health condition and self-readiness to carry out the role of mother at a more mature age.

Based on education level, most respondents have secondary education as many as 29 respondents (53.7%). Education plays an important role in the mother's ability to receive and understand health information. Mothers with secondary and higher education tend to understand the education provided by health workers more easily, thus helping to reduce anxiety. However, higher levels of education do not necessarily eliminate anxiety, especially in primipara mothers who do not have experience in caring for babies. In mothers with basic education,

limited understanding can be an additional factor that affects anxiety, so a simple and easy-to-understand educational approach is needed.

Judging from employment status, the majority of respondents were housewives as many as 35 respondents (64.81%). Despite having more flexible time to care for babies, housewives can still experience anxiety due to the demands of new roles and full responsibility for babysitting. Meanwhile, working mothers also have the potential to experience anxiety related to the ability to divide time between work and baby care. Thus, employment status is not the main factor, but more related to the mental readiness and support received by the mother. Most of the respondents underwent 3-4 days of hospital treatment, namely 26 respondents (48.15%). The length of this treatment provides an opportunity for health workers to provide education gradually. Mothers who are cared for longer have a greater chance of obtaining information, doing hands-on practice, and getting guidance, which can improve understanding and reduce anxiety. On the other hand, a shorter duration of treatment can cause the mother's readiness to take care of the baby to be less optimal.

The results of the study also showed that most of the respondents received newborn care education programs during the hospital treatment period, namely 37 respondents (68.52%). The education provided includes umbilical cord care, breastfeeding techniques, how to bathe the baby, keep the baby warm, and recognize danger signs in newborns. The provision of education plays an important role in improving the knowledge and skills of primipara mothers, so that it can reduce uncertainty and increase confidence in caring for babies. Before being educated, most primipara mothers experienced anxiety in the mild to moderate category. This condition shows that anxiety is a common thing in mothers who are giving birth for the first time. This anxiety is generally caused by a lack of experience, fear of making mistakes, and worries about the baby's condition. In addition, physical and hormonal changes after childbirth can also affect the emotional state of the mother (Widianingtyas, S. I., 2022).

After being educated, there was a significant decrease in the level of anxiety, where most of the respondents were in the category of not anxious and mildly anxious. This shows that newborn care education has a positive impact on the psychological condition of the mother. Education helps mothers understand how to properly care for their babies, thereby

reducing fear and increasing confidence. Interaction with health workers during the education process also provides emotional support that also contributes to reducing anxiety. The results of the statistical test using the Wilcoxon Signed Rank Test showed a p value of < 0.05 , which means that there is a significant difference between the level of anxiety before and after education. Thus, newborn care education programs have been proven to be effective in reducing anxiety of primitive mothers. Education not only improves knowledge, but also serves as psychosocial support in helping mothers adapt to their new roles. Overall, the results of this study show that newborn care education programs have an important role in increasing the readiness of primipara mothers. Therefore, systematic and continuous education needs to be an integral part of postnatal services in hospitals to reduce maternal anxiety and improve the quality of newborn care at home.

CONCLUSION

Based on the results of the study, it can be concluded that the newborn care education program is effective in reducing the anxiety level of primipara mothers at the Tengku Peukan Regional General Hospital. Before being educated, most mothers experience anxiety in the mild to moderate category which is influenced by lack of experience, fear, and uncertainty in caring for the baby. After being educated, there was a significant decrease in anxiety levels, where most mothers were in the category of not anxious and mildly anxious. The results of statistical tests showed that there was a significant difference between the level of anxiety before and after education, so it can be concluded that education not only improves the mother's knowledge and skills, but also plays a role as psychological support in helping the mother adapt to her new role.

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