

The Relationship Between Mother's Knowledge And Attitude With Low Birth Weight (LBW) In The Working Area Of Simpang Tiga Public Health Center

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ABSTRACT

Pregnancy is a natural process that occurs over time. However, not all pregnancies and deliveries proceed physiologically; instead, they proceed pathologically, posing significant risks to the mother and fetus. One such risk is Low Birth Weight (LBW). Objective: This study aims to determine the relationship between maternal knowledge and attitudes and Low Birth Weight (LBW) in the Simpang Tiga Community Health Center (Puskesmas) work area. Method: This study was descriptive and analytical. Random sampling was used. Respondents were 40 postpartum mothers. The research instrument was a questionnaire consisting of 20 questions about personal matters and respondents' knowledge. The data were processed using the chi-square test with the help of SPSS. Results: Statistical analysis showed a relationship between maternal knowledge and LBW, with a P value of 0.00. There was also a relationship between maternal attitudes and LBW, with a P value of 0.00. Conclusion: Maternal knowledge and attitudes regarding LBW significantly influence infant mortality. So, if mothers have knowledge about LBW and are good at responding to LBW when it occurs, they can directly reduce infant mortality rates.

Keywords: Low Birth Weight (LBW), Knowledge, Attitude

INTRODUCTION

Pregnancy is a natural process that occurs over time. A fetus grows in a mother's womb with the hope of achieving physiological growth and being born through a physiological birth process. However, not all pregnancies and deliveries proceed physiologically; instead, some proceed pathologically, posing significant risks to both the mother and the fetus, including low birth weight (LBW). (Rahmawati, 2022)

World Health Organization According to the World Health Organization (WHO), nearly all (98%) of the 5 million neonatal deaths occur in developing countries. More than two-thirds of these deaths occur in the early neonatal period, generally due to birth weights of

less than 2,500 grams. According to the WHO, 17% of the 25 million births annually are low birth weight (LBW), and almost all of them occur in developing countries.(Musdalifa, 2024)

Indonesia's infant mortality rate (IMR) remains the highest among ASEAN countries. As of 2023, the IMR in Indonesia is estimated at 248 per 100,000 live births. This compares favorably with Malaysia, which recorded 41 stillbirths per 100,000 live births, Thailand, which recorded 44 stillbirths per 100,000 live births, and the Philippines, which recorded 170 stillbirths per 100,000 live births.(PPMRS, 2023)

The 2023 Basic Health Research (Riskesdas) results show that the percentage of toddlers (0-59 months) with low birth weight (LBW) was 10.2%. The highest percentage of low birth weight was in Central Sulawesi Province (16.8%), and the lowest in North Sumatra (7.2%), with Aceh Province ranking 7th out of 34 provinces.(Riskesdas, 2023)

Based on data obtained from the Bener Meriah District Health Office (Dinkes) (2024), the incidence of LBW in Bener Meriah was (12.19%) which occurred in 2024. And is the second highest cause of death after asphyxia.(Bener Meriah Health Office, 2024)

Based on initial data obtained from the Simpang Tiga Community Health Center, Bukit District, Bener Meriah Regency, the number of babies with LBW was 12 babies, of which 10 babies lived and 2 babies died.

Therefore, this study aims to determine the relationship between maternal knowledge and attitudes with LBW in the Simpang Tiga Community Health Center work area.

METHOD

This study used a cross-sectional design conducted at Simpang Tiga Community Health Center from January to February 2025.(Notoatmodjo, 2020)The research population was all mothers who gave birth at Simpang Tiga Health Center, totaling 156 people, with 40 respondents selected using random sampling.(Arikunto, 2020).

Data collection was conducted using a structured questionnaire on knowledge and attitudes, the validity of which was previously tested (Cronbach's alpha = 0.78). Statistical analysis was performed using the Chi-square test with a significance level of 5% ($p \leq 0.05$). (Arikunto, 2020).

RESULTSAND DISCUSSION

Univariate Analysis

Table 1. Characteristics of Mothers

Characteristics	Respondents	
	N	%
Knowledge		
Good	9	22.5
Enough	18	45
Not enough	13	32.5
Attitude		
Positive	12	30
Negative	28	70
Low birth weight		
Yes	7	17.5
No	33	82.5
Total	40	100

Source: Primary Data, 2024

The study results showed that 45% of mothers had sufficient knowledge about low birth weight, while 70% showed negative attitudes. This is consistent with the findings of (Purnamasari et al, 2023) who reported that lack of maternal knowledge is one of the factors causing LBW.

Bivariate Analysis

Table 2. Relationship between maternal knowledge and LBW

Knowledge	Low birth weight				Amount		P Value
	Yes		No		F	%	
	F	%	F	%			
Good	1	2.5	8	20	9	22.5	0.00
Enough	4	10	14	35	18	45	
Not enough	2	5	11	27.5	13	32.5	
Total	7	17.5	33	82.5	40	100	

The table above shows that of the 40 respondents, the majority had sufficient knowledge, amounting to 18 respondents (45%), sufficient knowledge with no LBW amounting to 14 respondents (35%), and sufficient knowledge with LBW amounting to 4 respondents (10%).

From the results of statistical analysis using the chi-square test, the p value was obtained = $0.00 < 0.05$, this shows that there is a relationship between maternal knowledge and LBW in the Simpang Tiga Community Health Center Work Area.

Table 3. Relationship between maternal attitudes and LBW

Attitude	Low birth weight				Amount		P Value
	Yes		No		F	%	
	F	%	F	%			
Positive	2	5	10	25	12	30	0,000
Negative	5	12.5	23	57.5	28	70	
Total	7	17.5	33	82.5	40	100	

Table 3 above shows that of the 40 respondents, the majority had a negative attitude, amounting to 28 respondents (70%). The majority of respondents with non-LBW were 23 respondents (57.5%), and those with LBW had a negative attitude, amounting to 5 respondents (12.5%).

From the results of statistical analysis using the chi-square test, the p value was obtained = $0.00 < 0.05$, this shows that there is a relationship between maternal attitudes and LBW in the Simpang Tiga Health Center Work Area.

CONCLUSION AND SUGGESTIONS

Conclusion

This study confirms a significant relationship between maternal knowledge and attitudes toward low birth weight (LBW). Increasing education about low birth weight (LBW) can play a significant role in reducing this complication.

Suggestion

Health centers should regularly hold LBW prevention education sessions for postpartum mothers.

Future research should examine other contributing factors, such as psychological stress and family support.

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