

Original Article

The LBW Reviewed From Nutritional And Parity Nutritional Status Of Pregnant Mother

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ABSTRACT

Background: Low birth weight babies are more prone to possible growth barriers, changes in body proportions and a number of metabolic and cardiovascular changes. In addition, low birth weight babies will also have a higher risk of mortality and morbidity, malnutrition, short or thin problems during their childhood. The nutritional status of pregnant women greatly affects the growth of the fetus being conceived. Purpose of knowing LBW incidence in terms of nutritional status of pregnant women and parity of pregnant women in the perinatology room of RSUD Undata Palu, Central Sulawesi Province

The design used in the study is Retrospective. Population is All Babies and Mothers in the Peritology Room of Rsud Undata Palu. The sample size was 35 respondents using the Independent Variable Purposive sampling technique. The research was nutritional status and maternal parity. The dependent variable is the incidence of LBW. Data was collected using a questionnaire, then the data were analyzed using logistic regression tests with a significance level of $\alpha \leq 0.05$.

The results showed that almost half of respondents had 2-4 pregnancies as many as 17 respondents (48.6%), had good nutrition as many as 24 respondents (68.6%), not LBW as many as 28 respondents (80%). Test Statistics found that the significance value of p value from the wald test was 0.001. The results of the next statistical test found that $p < \alpha$ with a value of <0.05 , this can be seen in Overall Statistics with a significance value of (p) 0.005 which means that there are variables that affect the incidence of LBW

There is a relationship between LBW incidence in terms of nutritional status of pregnant women and parity of pregnant women in the perinatology room of RSUD Undata Palu, Central Sulawesi Province.

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Introduction

Many problems in newborns are related to biochemical and physiological adjustment or failure caused by prematurity, anatomic abnormalities, and the environment that is not good in the womb, both in labor and after birth, one of which is LBW. The most common cause of LBW is premature birth. Other maternal factors are age, parity, etc. 1. Placental factors such as vascular disease, multiple / multiple pregnancies, and fetal factors are also a cause of LBW. Babies with low birth weight will experience impaired immune function. The more severe growth retardation experienced by the fetus, the more severe the immunocompetent damage and the damage will persist throughout childhood. Low birth weight babies are more susceptible to possible growth inhibition, changes in body proportions and a number of metabolic and cardiovascular changes. In addition, low birth weight babies will also have a higher risk of mortality and morbidity, malnutrition, short or thin problems during childhood.

World Health Organization (WHO) in 2017, in developing countries nearly 70% of neonatal deaths and 17 of 25 million deliveries per year give birth to babies with LBW². Based on data obtained from the District / City Health Office in Central Sulawesi in 2015, IMR was obtained by 11 per 1,000 live births, this figure shows an increase of 10.4 per 1,000 live births (Dinkes, 2015). The 2017 Palu Statistics Agency Data found that Total LBW 181 babies. Riskesdas 2018 Results, Pregnant women with chronic energy shortages (KEK) of more than 17.3%, the results of a preliminary study found that in the Perinatology Room Undata Hospital, Palu, Central Sulawesi Province The last three months (July - September 2018) there were an average of 35 babies LBW per month of the 10 babies 6 of which are the first child, and 4 are the second child. 10 There are 7 mothers of babies with a lean circumference of <23.5 cm.

LBW can occur from maternal factors such as illness, complications in pregnancy, maternal age and parity, maternal habits. Fetal factors such as rematuration, hidramion, twin /

multiple pregnancy (tingling), chromosomal abnormalities³. Environmental factors that can affect include; highland dwellings, radiation, socio-economics and exposure to toxic substances. Complications that are obtained if you do not get the right handling is the interference with temperature regulation. Unstable body temperature due to difficulty maintaining body temperature caused by increased evaporation due to lack of fatty tissue under the skin. Respiratory disorders often cause severe illness in LBW. This is due to the lack of surfactant, lung growth and development that has not been perfect, respiratory muscles are still weak and the ribs are easily curved. Impact Low birth weight babies are more susceptible to possible growth inhibitions, changes in body proportions and a number of metabolic and cardiovascular changes. In addition, low birth weight babies will also have a higher risk of mortality and morbidity, malnutrition problems, short or thin during their childhood⁴.

Nutritional status is a state of the level of adequacy and use of nutrients or more that affect one's health. A person's nutritional status is essentially the result of a balance between the consumption of substances and the needs of that person. The condition of nutritional status is SEZ because of an imbalance between consumption of food substances and needs. This situation affects the fetus it contains. The nutritional status of pregnant women greatly affects the growth of the fetus being conceived⁵. If the nutritional status of the mother is normal during pregnancy, it is most likely to give birth to a healthy baby, just months with normal weight. The quality of babies born is highly dependent on the nutritional condition of the mother during pregnancy⁶. Mothers with parity have a higher risk of LBW because the mother's birth canal has not been tested and is associated with a lack of experience and knowledge in pregnancy care, especially the fulfillment of adequate nutrition. When viewed again the number of children \geq four can cause fetal growth disorders so that babies with LBW and

bleeding due to the uterus is very weak⁷. Based on this background, researchers are interested in researching the title BBLR in terms of the nutritional status of pregnant women and the parity of pregnant women in the Perinatology Hospital Undata Palu, Central Sulawesi Province.

Method

The design used in the study is retrospective. The population was all infants and mothers in the Rsud Undata Palu Peritanology Room. The sample size was 35 respondents using purposive sampling technique. The independent variables of the study were nutritional status and parity of the mother. The dependent variable is the LBW event. Data were collected using a questionnaire, then data were analyzed using the logistic regression test with a significance level of $\alpha \leq 0.05$.

Results

Table 1. Frequency Distribution of Respondents based on Parity in Perinatology Room Undata Palu Hospital on 6 February-6 March 2019 (n = 35)

No	Parity	Frequency	Percentage
1	0	4	11,4
2	1	10	28,6
3	2-4	17	48,6
4	> 5	4	11,4
Total		35	100

The results showed that nearly half of respondents had 2-4 pregnancies totaling 17 respondents (48.6%).

Table 2. Distribution of Respondent Frequencies based on Maternal Nutrition in Perinatology Room Undata Palu Hospital on 6 February-6 March 2019 (n=35)

No	Nutrition for Mother	Frequency	Percentage
1	Poor Nutrition	11	31,4
2	Good Nutrition	24	68,6
Total		35	100

The results showed that the majority of respondents had good nutrition as many as 24 respondents (68.6%).

Table 3. Frequency Distribution of Respondents based on LBW in Perinatology Room Undata Palu Hospital on 6 February-6 March 2019 (n = 35)

No	LBW Event	Frequency	Percentage
1	LBW	7	20,0
2	Not LBW	28	80,0
Total		35	100

The results showed that almost all non-LBW respondents were 28 respondents (80%).

Table 4. Test Statistics

No	Variabel	Wald	df	Sig.
1	Parity	,001	1	,210
2	Mother's Nutrition		1	,024
Overall statistic			2	,005

The statistical test in this study used a logistic regression test, found that, the significance value of p value from the Wald test was 0.001, which means that each variable had a partial effect.

The results of the next stage of statistical tests found that $p < \alpha$ with a value < 0.05 , this is seen in Overall Statistics with a significance value of (p) 0.005 which means that there are variables that affect LBW events, and when seen the value (p) in each independent variable namely parity variable has a value (p) of 0.210, maternal nutrition has a value (p) of 0.024. Which means that maternal nutrition affects the incidence of LBW.

Discussion

The statistical test in this study used a logistic regression test, found that, the significance value of p value from the Wald test was 0.001, which means that each variable had a partial effect. The results of the next stage of statistical tests found that $p < \alpha$ with a value < 0.05 , this is seen in Overall Statistics with a significance value of (p) 0.005 which means that there are variables that affect LBW events, and when seen the value (p) in each independent variable namely parity variable has a value (p) of 0.210, maternal nutrition has a value (p) of 0.024. Which means that maternal nutrition affects the incidence of LBW.

The period of infancy starts from the age of 0-12 months which is marked by growth and rapid physical changes accompanied by changes in nutrient requirements. During this period, the baby is entirely dependent on the care and feeding by the mother. The stages of growth during infancy are divided into the neonatal period at 0-28 days and the post neonatal period at 29 days-12 months⁹. Pregnancy increases energy metabolism, so the energy needs and other nutrients increase during pregnancy. Increased energy and nutrients are needed for fetal growth and development, increase in the size of the uterine organs, as well as changes in the composition and metabolism of the mother's body. So the lack of nutrients during pregnancy can cause the fetus to grow imperfectly¹⁶. Nutritional needs during pregnancy will increase by 15% compared to the needs of normal women. Increased nutrition is needed for growth of the uterus (uterus), breasts (mammary), blood volume, placenta, amniotic fluid and fetal growth. Food consumed by pregnant women will be used for fetal growth by 40% and the remaining 60% is used for mother's growth¹⁷:

There is an influence on the nutritional status of mothers with LBW events. according to the theory that growth is related to changes in the nutrition of pregnant women⁹. Physical growth is a quantitative thing, which can be measured. Growth indicators include changes in height and weight, teeth, skeletal structure, and sexual characteristics⁹. The most common cause of LBW from mothers is nutrition from the mother herself. Nutritional status is a measure of success in fulfilling nutrition for pregnant women. Nutritional status is also defined as health status which is produced by a balance between nutrient needs and inputs. Pregnant mother's nutrition is healthy and balanced food which the mother must consume during her pregnancy, with a portion of two meals for a person who is not pregnant. Pregnant mother's nutrition is healthy and balanced food that must be consumed during pregnancy, namely by eating two servings of people who are not pregnant. The nutritional status of pregnant women is one indicator in measuring the nutritional status of babies to be

born. If the nutritional intake for pregnant women from food is not balanced with the needs of the body there will be nutritional deficiencies in the mother and baby.

Conclusion

1. The results showed that almost half of respondents had 2-4 pregnancies totaling 17 respondents (48.6%).
2. The results of the study found that the majority of respondents had good nutrition as many as 24 respondents (68.6%).
3. The results showed that almost all non-LBW respondents were 28 respondents (80%).
4. The statistical test in this study uses a logistic regression test, it was found that, the significance value of p value from the Wald test was 0.001, which means that each variable had a partial effect. The next stage statistical test results found that $p < \alpha$ with a value of < 0.05 , this is seen in Overall Statistics with a significance value of (p) 0.005 which means that there are variables that affect LBW events, and when seen the value (p) in each independent variable namely parity variable has a value (p) of 0.210, maternal nutrition has a value (p) of 0.024. Which means that maternal nutrition affects the incidence of LBW.

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