

## Determinants of Behavior of Pregnant Women on LBW Event in Bulukumba District Ujungloe Puskesmas

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**Abstract:** This study aims to determine the effect of factors that influence the behavior of pregnant women on the incidence of LBW which includes parity, LILA, occupation of pregnant women, distance of pregnancy, consumption of Fe tablets, and ANC examination. The research method used is a survey method with a Cross Sectional Study approach. The number of samples in this study were 88 people based on the Slovin formula of as many as 112 study populations. Data analysis methods used logistic regression using the SPSS program (Statistical Package for Social Sciences) version 21. Based on the results of the study it can be concluded that: (1) Parity does not affect the incidence of LBW in the working area of Ujung Loe Health Center in 2019, (2) LILA (Upper Arm Circumference) does not affect the incidence of LBW, (3) Job Status of Mother has no effect LBW, (4) Pregnancy Distance did not affect the incidence of LBW, (5) Consumption of Fe Tablets affected the incidence of LBW, and (6) ANC examination does not affect the incidence of LBW in the working area of Ujung Loe Health Center in 2019.

**Keywords:** parity, LILA, job status of mother, consumption of Fe tablets, ANC examination, LBW.

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### I. Introduction

The World Health Organization (WHO) states that Low Birth Weight Babies (LBW) are defined as babies born with a weight of <2500 grams. In the past neonates with birth weight less than 2,500 grams or equal to 2,500 grams were called premature. The WHO in 1961 established that all newborns with birth weights of less than 2,500 grams were called Low Birth Weight Infants (Yushananta, 2001).

Low birth weight babies are babies born with birth weight less than 2500 grams regardless of pregnancy. Birth weight is the weight of the baby weighed within 1 hour after birth. For the needs of midwives in villages birth weight can still be accepted if weighing is carried out in the first 24 hours (Ministry of Health, 2009).

According to Barker (1996) if a baby is born with a body weight of less than 2500 g at sufficient gestational age, the child will later suffer from heart disease, high blood pressure and diabetes. Thus, if every year there are estimated to be 350,000 babies born in Indonesia with birth weights of less than 2500 g, there will be 350,000 candidates with degenerative diseases every year.

Low Birth Weight (LBW) occurs because of several factors including health behavior. Blum (1974) in Notoatmodjo (2003: 8), broadly explained about the factors that affect health of individuals, groups, and communities, including behavior.

Behavior is the result of all kinds of experiences and very broad interactions. Benyamin Bloom (1908) quoted by Notoatmodjo (2012) an educational psychologist distinguishes the existence of 3 areas, regions, domains or domains of behavior, namely cognitive, affective, and psychomotor. Behavior is a person's psychological reaction to the environment, the reaction has various forms which are essentially classified into 2 namely in the form of passivity (without concrete or concrete actions), and in an active form (with concrete actions). This form of behavior can be observed through attitudes and actions, but it does not mean that the form of behavior can only be seen from attitudes and actions, behavior can also be potential, namely in the form of knowledge, motivation and perception.

Rahayu (2018) found that all variables of maternal behavior affect the birth of LBW babies in Sidoarjo Regency, including Frequency of antenatal care ( $p = 0$ ), Number of Fe consumed ( $p = 0$ ), Sports ( $p = 0$ ), Frequency adjacent to smokers ( $p = 0$ ), Frequency of eating ( $p = 0.01$ ), Type of food consumed ( $p = 0.01$ ), Work status of the mother ( $p = 0.002$ ), Duration of maternal rest ( $p = 0$ ). The most influential factor for the birth of LBW infants in Sidoarjo Regency by using multiple logistic regression tests of maternal behavior, namely the frequency of being close to smokers ( $p = 0$ ).

Kumalasari, et al (2018) found that the incidence of LBW was 19.6%. The results of bivariate analysis showed that there was a significant relationship between gestational age ( $p = 0,000$ ; OR = 77,055), multiple pregnancies ( $p = 0,000$ ; OR = 21,387), eklampsi, ( $p = 0,002$ ; OR = 3,310), preeclampsia ( $p = 0.010$ ; OR = 1.836) Hb levels ( $p = 0.014$ ; OR = 1,668) and education ( $p = 0.044$ ; OR = 1,640) with the incidence of LBW. Gestational age is the most dominant factor causing LBW after other variables are controlled. Kurnia, et al. (2018) found that there was no relationship between physical activity and infant birth weight ( $p = 0.561$ ). Based on the intervention there was also no relationship between physical activity and birth weight with  $p$  value of each  $p = 0.391$ ,  $p = 0.840$ ,  $p = 0.644$ .

The solution for LBW babies is with the Care of the Kangaroo Method (PMK), giving exclusive breastfeeding, seeking as much information as possible about LBW and babies should be placed in a warm place. LBW is high risk neonates who need special treatment to support their lives. LBW experiences the immaturity of its organs such as the heat regulation center that has not developed so that it requires a warm place to maintain its bodily functions. Thin skin and lack of fat in it adds to the tendency for LBW to experience hypothermia so that a warm place can be a suitable solution for him. Another tendency for low birth weight is the threat of infection that can interfere with LBW health. After LBW can suckle itself, adequate milk intake will be able to reduce the risk of infection in LBW and improve nutrition LBW as an effort to grow and develop. (Bobak, 2004; Elizabeth, et. Al, 2013; Wong, et. Al, 2002; Wong, 2009 in Sofiani, 2013).

## II. Literature Review

### Low Birth Weight Babies (LBW) Concept

According to the World Health Organization (WHO) Low Birth Weight Babies (LBW) are defined as babies born weighing <2500 grams. Birth weight is the weight of the baby weighed within the first 1 (one) hour after birth. Measurements are made at the facility (hospitals, Puskesmas, and Polindes), while babies born at home when weight measurements can be made within 24 hours.

LBW can occur in less-term / premature babies or called LBW According to Appropriate for Gestational Age (AGA), term infants who experience growth restriction during pregnancy / Intra-Uterine Growth Restriction (IUGR) are called LBW Small Pregnancy Period ( KMK / Small for Gestational Age (SGA) and Large for Gestational Age (LGA). (7–10) Premature incidence is generally around 6-10%, only 1.5% of births occur at the age of pregnancy. <32 weeks and 0.5% <28 weeks, but this group is 2/3 of neonatal maturity. The younger the gestational age the greater the morbidity and mortality. The success of preterm labor depends not only on gestational age, but also on the weight of the baby born.

### The Concept of Health Behavior

Behavior is the result of all kinds of experiences and very broad interactions. Benyamin Bloom (1908) cited by Notoatmodjo (2012) an educational psychologist who distinguishes the existence of 3 areas, regions, domains or domains of behavior, namely cognitive, affective, and psychomotor. Behavior is a person who has psychological reactions to the environment, reaction has various forms which are essentially classified into 2, namely in the form of passivity (without concrete or concrete actions), and an active form (with concrete actions). This form of behavior can be observed through attitudes and actions, but can also be potential, namely in the form of knowledge, motivation and perception.

Health behavior is also explained in the theory of Hendrik L Blum (1974) in Notoatmodjo (2003) and Green theory (1980) in Notoatmodjo (2014). In the theory of Blum (1974) Notoatmodjo (2003), there are 4 factors that are used as health degrees including behavioral factors, health service factors, genetic factors and environmental factors. These factors have a very large role in improving the health status of both individuals and society.

According to Lawrence Green (1980) in Notoatmodjo (2014), that the health of a person or society is influenced by factors, namely behavioral factors and factors beyond behavior, then the behavior itself is determined or formed from 3 factors:

1. Predisposing factors that are manifested in knowledge, attitudes, beliefs, values and so on. This factor includes knowledge and attitudes, in this study is the knowledge and attitudes of health workers on health, on matters relating to health, value systems adopted by health workers, education level, socio-economic level and so on. This factor is a factor that becomes the basis for someone behaving or it can also be said to be a factor of "personal" preferences that are innate that can be either supporting or inhibiting someone to behave in a certain way.
2. Enabling factors that are manifested in the physical environment, availability or unavailability of facilities or facilities. This factor is an environmental characteristic (in the form of a health service place) that makes it easy for officers in health behavior and any skills or resources needed to carry out behavior. This factor includes the availability of facilities and infrastructure or health facilities for health workers.

- Reinforcing factors are manifested in the attitudes and behavior of officers who are a reference group of people's behavior. This factor is manifested in the attitudes and behavior of health workers or other health workers. This includes laws, regulations, both from the regional government and from the center. The reinforcing factor is also a factor that determines whether the health action is supported or not.

### III. Methodology

The type of this research is that research is a quantitative study that uses a survey method with a cross sectional study approach where data relating to independent variables and dependent variables will be collected and examined at the same time.

Data collection techniques in this study use primary data and secondary data. Primary data is data obtained directly from the results of interviews and observations from respondents. Secondary data is obtained through report documents of a certain period in the working area of Ujung Loe Health Center in the form of LBW incidence data and the number of pregnant/childbirth mothers.

The population in this study were mothers who had given birth in the working area of the Ujung Loe Community Health Center from January to March 2019, namely 112 people. In this study the determination of the number of samples using a sample formula from Slovin (1960). based on the Slovin (1960) sample formula obtained the number of samples in this study were 88 people. The working area of Ujung Loe Health Center, Bulukumba Regency consists of 8 villages so that the total sample of 88 pregnant women is proportioned as follows:

**Table 1** Sample Proportion

Number	Village	Population	Proportion	Sample
1	Dannuang	18	$=(18/112)*88$	14
2	Salemba	19	$=(19/112)*88$	15
3	Padang Loang	17	$=(17/112)*88$	13
4	Seppang	11	$=(11/112)*88$	9
5	Bijawang	11	$=(11/112)*88$	9
6	Lonrong	3	$=(3/112)*88$	2
7	Garanta	13	$=(13/112)*88$	10
8	Manjalling	20	$=(20/112)*88$	16
Total		112		88

Source: Health Office, Bulukumba (2019)

Data analysis was carried out using version 21 of the SPSS (statistical package for social sciences) program. The analysis method carried out consisted of univariate, bivariate and multivariate analysis methods. This study uses a cross-sectional study, while the analysis of the influence of independent variables on the dependent variable uses bivariate test (chi-square test) and multivariate with logistic regression test.

### IV. Results

#### Characteristics of Respondents

The distribution of research variables consisted of variable parity, Upper Arm Circle (LILA), maternal occupation, distance of pregnancy, consumption of Fe tablets, ANC examination, and LBW.

**Table 2** Distribution of Respondents by Parity, LILA, Job Status of Mother, Pregnancy Distance, Consumption of Fe Tablet, ANC Examination, and LBW at Ujung Loe Health Center 2019

Criteria	n	%
Parity		
Not Risk	31	35,2
High Risk	44	50,0
Low Risk	13	14,8
Total	88	100,0
LILA		
Normal	73	83,0
Abnormal	15	17,0
Total	88	100,0
Job Status of Mother		
Work	18	20,5
Does not work	70	79,5
Total	88	100,0
Pregnancy Distance		
Not Risk	22	25,0
High Risk	53	60,2
Low Risk	13	14,8
Total	88	100,0

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Criteria	n	%
Consumption of Fe Tablets		
Yes	50	56,8
Not	38	43,2
Total	88	100,0
ANC Examination		
Complete	27	30,7
Incomplete	61	69,3
Total	88	100,0
BBLR		
No LBW	71	80,7
LBW	17	19,3
Total	88	100,0

Source: Primary Data, 2019

Table 2 shows that the majority of respondents had high risk parity of as many as 44 people (50%), respondents who had no risk parity as many as 31 people (35.2%) and the rest had low risk parity of 13 people (14, 8%). Most of the respondents had a normal size of LILA as many as 73 people (83.0%) and the rest had abnormal LILA as much as 17%. Most of the respondents did not work, namely as many as 70 people (79.5%) and the rest worked ie as many as 18 people (20.5%). Most respondents had a low risk distance of 53 people (60.2%), respondents who did not have a risk of pregnancy distance were 22 people (25%) and the rest had a high risk pregnancy distance of 13 people (14.8%) . Most of the respondents consumed Fe tablets according to the doctor's recommendations, which were 50 people (56.8%) and the rest consumed Fe tablets which were not as recommended by the doctor, namely 38 people (43.2%). Most of the respondents had incomplete NAC examinations which were as many as 61 people (69.3%) and the rest had complete NAC examinations which were as many as 27 people (30.7%).

**Bivariate Analysis**

Bivariate analysis in this study used the chi square test with the aim to see the relationship between the independent variables (parity, upper arm / LILA, maternal occupation, distance of pregnancy, consumption of Fe tablets and ANC examination) with the dependent variable (LBW incidence).

**Table 3.** The Effect of Parity, LILA, Job Status of Mother, Pregnancy Distance, Consumption of Fe Tablet, and ANC Examination on LBW Events in the Ujung Loe Health Center 2019 Work Area

Criteria	LBW Events				Total		P
	No LBW		LBW		N	%	
	n	%	N	%	N	%	
Parity							
Not Risk	26	83,9	5	16,1	31	100,0	<b>0,154</b>
High Risk	33	75,0	11	25,0	44	100,0	
Low Risk	12	92,3	1	7,7	13	100,0	
Total	71	80,7	17	19,3	88	100,0	
LILA							
Normal	59	80,8	14	19,2	73	100,0	0,941
Abnormal	12	80,0	3	20,0	15	100,0	
Total	71	80,7	17	19,3	88	100,0	
Job Status of Mother							
Work	56	80,0	14	20,0	70	100,0	0,749
Does not work	15	83,3	3	16,7	18	100,0	
Total	71	80,7	17	19,3	88	100,0	
Pregnancy Distance							
Not Risk	18	81,8	4	18,2	22	100,0	0,108
High Risk	40	75,5	13	24,5	53	100,0	
Low Risk	13	100,0	0	0	13	100,0	
Total	71	80,7	17	19,3	88	100,0	
Consumption of Fe Tablets							
Yes	49	98,0	1	2,0	50	100,0	0,000
Not	22	57,9	16	42,1	38	100,0	
Total	71	80,7	17	19,3	88	100,0	
ANC Examination							
Complete	24	88,9	3	11,1	27	100,0	0,250
Incomplete	47	77,0	14	23,0	61	100,0	
Total	71	80,7	17	19,3	88	100,0	

Source: Primary Data, 2019

Table 3 explains that out of 31 people whose parity is not at risk, most of the respondents did not have LBW babies, which were 26 people (83.9%). Of the 44 people with low risk parity, most of the respondents did

not have LBW babies, which were 33 people (75.0%). Of the 13 people with high risk parity, most of the respondents did not have LBW babies, which were 12 people (92.3%). The results of the chi square test showed a significance value of 0.154 which was greater than the value of 0.005 so that Ho was accepted. This means that parity does not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

Table 3 explains that of the 73 people who have Normal LILA, most of the respondents did not have LBW babies, which were 59 people (80.8%). Of the 15 people who have abnormal LILA, most of the respondents did not have LBW babies as many as 12 people (80.0%). The results of the chi square test showed a significance value of 0.941 which was greater than the value of 0.005 so that Ho was accepted. This means that LILA does not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

Table 3 explains that out of 70 mothers who did not work, most of the respondents did not have LBW babies, namely 56 people (80.0%). Of the 18 people who worked, most of the respondents did not have LBW babies which were as many as 15 people (83.3%). The results of the chi square test showed a significance value of 0.749 which was greater than the value of 0.005 so that Ho was accepted. This means that the work of mothers does not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

Table 3 explains that of the 22 people who did not have a pregnancy distance, most of the respondents did not have LBW babies, which were 18 people (81.8%). Of the 53 people who had a pregnancy distance of 0-2 years (low risk), most of the respondents did not have LBW babies as many as 40 people (75.5%). Of the 13 people who had a pregnancy distance of > 2 years (high risk), all respondents did not have LBW babies as many as 13 people (100.0%). The results of the chi square test showed a significance value of 0.108 which was greater than the value of 0.005 so that Ho was accepted. This means that the distance of pregnancy does not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

Table 3 explains that of the 50 people who consumed Fe tablets according to the doctor's recommendation, most of the respondents did not have LBW babies, which were 49 people (98.0%). Of the 38 people who consumed Fe tablets not as recommended by doctors, most of the respondents did not have LBW babies, which were 22 people (57.9%). The results of the chi square test showed a significance value of 0,000 smaller than the value of 0.005 so that Ho was rejected. This means that consumption of Fe tablets affects the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

Table 3 explains that of the 27 people who had a complete ANC examination, most of the respondents did not have LBW babies, which were 24 people (88.9%). Of the 61 people who had incomplete ANC examinations, most of the respondents did not have LBW babies as many as 47 people (77.0%). The results of the chi square test showed a significance value of 0.250 greater than the value of 0.005 so that Ho was accepted. This means that the ANC examination did not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

### **Multivariate Analysis**

Multivariate analysis was used to determine the effect of independent variables in the study simultaneously or simultaneously on the dependent variable. Independent variables that are feasible to enter the multivariate test model are variables that have a significance level (sig.) Or p value <0.025 with the "Enter" method in logistic regression. The results of the selection of appropriate variables are as follows:

**Table 4** Feasibility of Variables for Multivariate Tests

Variable Dimensions	p-Value
Parity	0,265
LILA	0,941
Job Status of Mother	0,750
Pregnancy Distance	0,228
Consumption of Fe Tablets	0,001
ANC Examination	0,204

*Source: Primary Data, 2019*

Tabel 4 menunjukkan bahwa variable yang layak untuk dimasukkan ke dalam uji regresi logistic adalah konsumsi tablet Fe. Sedangkan variable paritas, LILA, pekerjaan ibu, jarak kehamilan, umur ibu, dan pemeriksaan ANC tidak layak masuk uji regresi logistik karena memiliki nilai  $P > 0,025$ .

**Table 5.** Multivariate Test Analysis with Logistic Regression

Sub Variable	B	S.E.	Wald	Sig.	Exp(B)	95% C.I.for EXP (B)	
						Lower	Upper
Consumption of Fe Tablets	3,100	1,089	8,107	0,004	22,195	2,627	187,492
Constant	-11,354	2,898	15,348				

Overall Percentage = 84,1  
Nagelkerke R Square = 0,522 (52,2%)

**Source: Primary Data, 2019**

Table 5 shows the Nagelkerke R Square value of 0.522 which indicates that the ability of the independent variable (Fe Tablet consumption) in explaining the dependent variable (LBW incidence) is 0.522 or 52.2% and there are 100% -52.2% = 47.8% other factors outside the model that explain the dependent variable (LBW). The table above shows the significance value of the variable consumption of Fe tablets (P = 0.004) which has a significant partial effect on the incidence of LBW.

The magnitude of the effect is indicated by the EXP value (B) or also called ODDS RATIO (OR). Variable Fe Tablet Consumption which has Exp (B) influence which is 22,195. This means that the consumption of Fe tablets is more risky as much as 22,195 times for respondents not to have LBW babies than those who do not consume Fe tablets. The value of B = Natural Logarithm of 22,195 = 3,100. Because the value of B is positive, the consumption of Fe tablets has a positive relationship with the incidence of LBW.

### V. Discussion

This study found that most respondents had babies who were not LBW. This study found that the majority of respondents had non-risky parity. The study also found that out of 75 people whose parity was not at risk, most of the respondents did not have LBW babies. Of the 13 people with risky parity, the majority of respondents did not have LBW babies. The chi square test results showed that parity did not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

The results of this study are in line with the research conducted by Rahmah (2015) which examined the title Relationship of Factors Affecting Low Birth Weight (LBW) with LBW Incidence in Syekh Yusuf Hospital 2015 and found that there was no meaningful relationship between parity (p = 0.961) with the incidence of LBW in Syekh Yusuf Hospital in 2015.

The results of this study are not in line with the theory that the age in the high risk category of a woman both physically and mentally is ready for pregnancy and childbirth, so that the effort to maintain her pregnancy will be better and the possibility of a risk tendency for the baby born can be reduced (Setyowati, 2007).

This study is in line with Lestari's (2015) study. It can be seen that there are 50 (27.0%) babies with LBW born to mothers of risky age, there are 7 (3.8%) babies with LBW born to mothers of risky age, and there are 2 (1.1%) babies with LBW born to mothers of risky age. The results of the Sperman rank test obtained a value of  $p = 0.216$   $\alpha = 0.05$ , then  $p > \alpha$ , so that  $H_0$  was accepted and  $H_a$  was rejected, meaning there was no relationship between age and the incidence of LBW in Dr. RSUD. H. Moch. Ansari Saleh Banjarmasin.

The results of this study are in line with the research of Hidayati & Rokhanawati (2013) who examined the names of Factors Affecting Low Birth Weight Babies in PKU Muhammadiyah Yogyakarta Hospital in 2012 and found that there was no significant relationship between maternal parity and LBW incidence. In addition, Sulistyorini (2014) found that the results of statistical tests with Chi-Square tests showed that there was no relationship between parity with LBW (p = 1,000) where (p) was more than ( $\alpha = 0.05$ ). Popular belief among the public, that labor will be easier and better with more and more childbirth experiences. Another study added that high parity status can increase the risk of LBW and stillbirth, this occurs because the higher the parity status the ability of the uterus to provide nutrients for subsequent pregnancies decreases so that the distribution of nutrients between mother and fetus is disrupted which can eventually lead to LBW.

This study found that most respondents had good LILA sizes. The study also found that of 73 people who had good LILA, the majority of respondents did not have LBW babies. Of the 15 people who had bad LILA, most of the respondents did not have LBW babies. The chi square test results showed that LILA did not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

This study found that most respondents did not work. The study also found that out of 70 mothers who did not work, most of the respondents did not have LBW babies. Of the 18 people who worked, most of the respondents did not have LBW babies. The chi square test results showed that the work of mothers did not affect the incidence of LBW in the work area of Ujung Loe Health Center in Bulukumba Regency in 2019.

The results of this study are also in line with the research of Hidayati & Rokhanawati (2013) who examined the names of Factors Affecting Low Birth Weight Babies in PKU Muhammadiyah Yogyakarta Hospital in 2012 and found that there was no significant relationship between maternal employment status and LBW incidence. Pregnant women who work outside the home have a dual workload, in addition to working

mothers also do work as housewives so they tend to have less rest periods which will lead to pregnancy complications that result in the occurrence of LBW (Trihardiani, 2011).

This study found that most respondents had a safe pregnancy distance. The study also found that of 56 people who had a safe pregnancy distance, the majority of respondents did not have LBW babies. Of the 32 people who had a distance of unsafe pregnancies, most of the respondents did not have LBW babies. Chi square test results showed that pregnancy distance did not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019. The results of this study are in line with research conducted by Monita (2016) which examined the Relationship of Age, Birth Distance and Hemoglobin Level with the incidence of LBW at Arifin Achmad Profinsi Hospital in Riau, 2016 and found that the results of statistical tests can be seen that the value of  $p = 0.932$  where  $p > 0.05$  means that there is no significant relationship between the birth spacing of pregnant women and the incidence of LBW.

The results of this study are different from the research of Marlenywati et al. (2015) which examined the titles of Factors Affecting LBW Occurrence in Dr. Hospital. Soedarso Pontianak and found that there was a relationship between the distance of pregnancy and the incidence of LBW with a value of  $P = 0.032$  and  $OR = 3.036$ . King (2003) and Hardinsyah (2000) suggest that the distance of pregnancy that is too close where the womb and the health of the mother have not recovered properly will have an impact on the health and nutrition of the mother. Reproductive organs will recover normally after two years of giving birth and to function optimally should be 4 years. Conversely, if the pregnancy distance is too long to make the reproductive organs require the process of adaptation to pregnancy just like the first pregnancy.

This study found that the majority of respondents consumed Fe tablets as prescribed by doctors. The study also found that of the 50 people who consumed Fe tablets as recommended by doctors, most of the respondents did not have LBW babies. Of the 38 people who consumed Fe tablets not as recommended by doctors, most of the respondents did not have LBW babies. The chi square test results showed that consumption of Fe tablets affected the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

This study found that most respondents had incomplete ANC examinations. The study also found that of 27 people who had complete ANC examinations, most of the respondents did not have LBW babies. Of the 61 people who had incomplete ANC examinations, most of the respondents did not have LBW babies. The chi square test results showed that consumption of Fe tablets did not affect the incidence of LBW in the working area of Ujung Loe Health Center in Bulukumba Regency in 2019.

The results of this study are different from the research of Marlenywati et al. (2015) which examined the titles of Factors Affecting LBW Occurrence in Dr. Hospital. Soedarso Pontianak and found that there was an antenatal care relationship with the incidence of LBW with a  $P$  value = 0.014 and  $OR = 3.345$ . The complete ANC service is not only seen from the quantity of visits, but also emphasizes on the quality of services that are in accordance with the standards. The role of health workers in the quality of ANC services is very important, namely early detection of disorders that may occur in pregnant women and how to overcome them and always reminds the mother to routinely carry out pregnancy checks at least 4 times during pregnancy, namely 1 time in the first and second trimesters, 2 times in the trimester third (Marlenywati et al., 2015). With regular prenatal care, it can prevent complications or emergence of complications for both mother and fetus, including anemia, abortion, premature delivery, uterine inertia, LBW, postpartum hemorrhage (Juaria, 2014).

## **VI. Conclusion**

Based on the results of the study it can be concluded that: (1) Parity does not affect the incidence of LBW in the working area of Ujung Loe Health Center in 2019, (2) LILA (Upper Arm Circumference) does not affect the incidence of LBW in the working area of Ujung Loe Health Center in 2019, (3) Job Status of Mother has no effect LBW in the working area of Ujung Loe Health Center in 2019, (4) Pregnancy Distance did not affect the incidence of LBW in the working area of Ujung Loe Health Center in 2019, (5) Consumption of Fe Tablets affected the incidence of LBW in the working area of Ujung Loe Health Center in 2019, and (6) ANC examination does not affect the incidence of LBW in the working area of Ujung Loe Health Center in 2019.

## **References**

- [1]. Bansal, Prerna, Sandeep Garg, Hari Prasad Upadhyay. (2018). Prevalence Of Low Birth Weight Babies And Its Association With Socio-Cultural And Maternal Risk Factors Among The Institutional Deliveries In Bharatpur, Nepal 2018
- [2]. Bhoknal, Kavita. (2018). Effectiveness of Health Education Package on Knowledge and Practice Regarding Care of Low Birth Weight Babies (LBW) Among Post Natal Mothers 2018
- [3]. Bhue, Pradip Kumar, Himansu Prasad Acharya, Subrat Kumar Pradhan, Pratima Biswal, Amit Pritam Swain, Durga Madhab Satapathy. (2018). Socio-Demographic Factors Associated With Low Birth Weight In A Tertiary Care Hospital Of Odisha 2018
- [4]. Bililign N, Legesse M & Akibu M. (2018). A Review of Low Birth Weight in Ethiopia: Socio-Demographic and Obstetric Risk Factors 2018
- [5]. Blum, Hendrik L. (1974). Planning for Health, Development and Application of Social Changes Theory. New York: Human Sciences Press

- [6]. Bobak. (2004). Buku Ajar Keperawatan Maternitas (Maternity Nursing) Edisi 4. Jakarta: EGC; hal. 205, 888-899.
- [7]. BPS Provinsi Sulawesi Selatan. Laporan Badan Pusat Statistik Provinsi Sulawesi Selatan Tahun 2016.
- [8]. Elizabeth NL, Christopher OG, Patrick K. (2013). Determining an Anthropometric Surrogate Measure For Identifying Low Birth Weight Babies in Uganda: a Hospital-Based Cross Sectional Study. *BMC Pediatric*. 13-54
- [9]. England., C. (2014). The Healthy Low Birth Weight Baby, dalam Myles Textbook For Midwives (hlm.617-627).Churchill Livingstone Elsevier.
- [10]. Gogoi, Nirmali. (2018). Maternal and Neonatal Risk Factors of Low Birth Weight in Guwahati Metro, Assam, Northeast India 2018
- [11]. Green, Lawrence. (1980). Health Education: A Diagnosis Approach, TheJohn Hopkins University, Mayfield Publishing Co.
- [12]. Hartiningrum, Indri & Nurul Fitriyah. (2017). Bayi Berat Lahir Rendah (Bblr) Di Provinsi Jawa Timur Tahun 2012-2016
- [13]. Khoiriyah, Hikmatul. (2018). Hubungan Usia, Paritas Dan Kehamilan Ganda Dengan Kejadian Bayi Berat Lahir Rendah Di Rsud Abdul Moeloek Provinsi Lampung 2018
- [14]. Intan Kumalasari, RM.Suryadi Tjekyan, M. Zulkarnain Faktor Resiko Dan Angka Kejadian Berat Badan Lahir Rendah (BBLR) Di Rsup Dr. Mohammad Hoesin Palembang Tahun 2014 (2018)
- [15]. Kemenkes Ri. (2018). Hasil Riset Kesehatan Dasar Tahun 2018. Badan penelitian dan pengembangan kesehatan KementerianKesehatan RI
- [16]. Kumar, Sanjay, Rakesh Kumar, Ms.Aparna Tewari, Richa, Sasthi Narayan Chakraborty, Tapas Kumar Som. (2018). Prevalence and Determinants of Low Birth Weight: An Experience from a Secondary Referral Unit Of Burdwan District, West Bengal (India)
- [17]. Kurnia, Wina, Hadju, & Muis. (2018). Hubungan Aktivitas Fisik Pada Ibu Hamil Dengan Berat Badan Lahir Di Kabupaten Jeneponto 2018
- [18]. Mitayani. (2009). Asuhan Keperawatan Maternitas. Jakarta : Salemba Medika
- [19]. Mulyawan, Henry. (2009). Gambaran Kejadian BBLR, Jakarta : Universitas Indonesia
- [20]. Notoatmodjo, Soekidjo. (2003). Pendidikan Dan Perilaku Kesehatan. Jakarta: PT. Rineka Cipta
- [21]. Notoatmodjo, Soekidjo. (2012). Promosi kesehatan dan Perilaku Kesehatan. Jakarta :Rineka cipta
- [22]. Notoatmodjo, S. 2014. Ilmu Perilaku Kesehatan. Jakarta: Rineka Cipta
- [23]. Parra, et al. (2005). Assesment of NutritionalEducation and Iron Supplement Impact on Preventionof Pregnancy Anemia, *Biomedica* 25(2): 211-9.
- [24]. Pasca Sarjana Unhas. (2018). Pedoman Penulisan Tesis dan Disertasi Sekolah Pasca Sarjana Unhas. Makassar : Unhas
- [25]. Proverawati, A. dan Ismawati, C. (2010). BBLR: Berat Badan Lahir Rendah, Nuha Medica, Yogyakarta
- [26]. Puskesmas Ujung Loe. (2019). Laporan Kesehatan Puskesmas Ujung Loe Kabupaten Bulukumba Tahun 2019
- [27]. Rahayu, Mai Linda Dwi. (2018). Pengaruh Karakteristik, Perilaku, Dan Sosial Ekonomi Ibu Terhadap Kelahiran Bayi Bblr (Berat Badan Lahir Rendah) Di Kabupaten Sidoarjo 2018
- [28]. Riskesdas. (2013). Riset Kesehatan Dasar Tahun 2013. Badan penelitian dan pengembangan kesehatan KementerianKesehatan RI
- [29]. Silvia., Putri, Y., Gusnila, E. (2015). Pengaruh Perawatan Metode KangguruTerhadap Perubahan Berat Badan Bayi Berat Lahir Rendah. *Jurnal IPTEKTerapan*
- [30]. Sofiani. (2013). Pengalaman Ibu Dengan Bayi Berat Lahir Rendah (BBLR) Mengenai Pelaksanaan Perawatan Metode Kanguru (PMK) Di Rumah
- [31]. Sunaryo dan Endang S. (2000). Defisiensi Folat dan TingginyaAngka Kematian Ibu serta Kasus Bayi Bermasalah.Bogor
- [32]. WHO. (2015). Infant Newborn.
- [33]. Wong DL, Perry SE & Hockenberry MJ. (2002). *Maternal Child Nursing Care* 1. United State: Mosby; Hal. 610.
- [34]. Wong DL. (2009). Buku Ajar Keperawatan Pediatric Vol 1. Jakarta: EGC; hal. 287.
- [35]. Yulisa, Refni & Imelda. (2018). Kejadian Berat Badan Lahir Rendah (BBLR) Di Rumah Sakit Aceh 2018
- [36]. Yushananta. (2004). Perawatan Bayi Risiko Tinggi. Jakarta. Gramedia PustakaUtama753-2000-7-22.

Fatimah. " Determinants of Behavior of Pregnant Women on LBW Event in Bulukumba District Ujungloe Puskesmas" .IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.04 , 2019, pp. 70-77.