



## RELATIONSHIP BETWEEN THE LEVEL OF MATERNAL EDUCATION AND READINESS FOR CARING FOR LOW BIRTH WEIGHT

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### ABSTRACT

Low birth weight (LBW) has a birth weight of fewer than 2500 grams, is generally at high risk because, they are smaller than normal birth weight babies and immature organ function. LBW needs special care to prevent emergency conditions that can be life-threatening. A person's education level can be a factor in how a person's ability to receive information. This study aims to determine the relationship between a mother's education level and readiness to care for LBW. This study is a correlation study, using a *cross-sectional* design. The study population was mothers who had LBW who were treated in the perinatology room of the Kendal area hospital using accidental sampling techniques, the number of samples was 40 respondents. The research tool uses a questionnaire. The univariate analysis uses frequency distribution while bivariate analysis uses the spearman test. The univariate analysis showed that the majority of mothers had a high school education level as much as 37.5%, 72.5% more than or 25 years, most of the parents were ready to care for LBW, namely 67.5%, while mothers who were not ready to care for LBW was 32.5%, the majority of mothers did not work as much as 57.5%. This Research shows that there is no relationship between the level of mother's education and the readiness to care for LBW with a P-value of 0.905. Mothers with higher education levels are not always ready to care for LBW.

Keyword: level of education; LBW; mother; weadiness

### INTRODUCTION

Neonate is someone who is experiencing a growth process and has just been born so that it requires adaptation from the uterus to extrauterine life (Sembiring, 2019). Neonates can be born with normal or low birth weight, which is usually referred to as Low Birth Weight (LBW). LBW is a baby with a birth weight of fewer than 2,500 grams regardless of the gestational period. LBW is divided into two groups, namely babies with very low birth weight (LBW) with a birth weight of 1000-1500 grams and very very low birth weight (LBW) with a birth weight of fewer than 1000 grams. (Proverawati, A & Ismawati, 2010).

The problems that occur in LBW, especially with preterm birth, occur because of the immaturity of the organ systems in the baby. Problems with LBW that often occur are disorders of the respiratory system, central nervous system, cardiovascular, hematology, gastrointestinal, kidney, thermoregulation. (Maryunani, 2013). The basic needs of neonates such as maintenance of respiration, nutrition, control and maintenance of body temperature, elimination, prevention of infection, the formation of parent-infant relationships, and developmental needs must be assessed as soon as possible (Reeder, S. J., & Griffin, 2011).

LBW is one of the risk factors for infant mortality so that proper handling of LBW is needed to prevent infant mortality. The causes of LBW are various, such as mothers who experience anemia during pregnancy, babies who are not getting enough nutrition when they are in the

womb, or born at less months. The percentage of BBLR in Central Java in 2017 was 4.4 percent, while in 2018 it was 4.3 percent. (Central Java Province Health Office, 2017).

LBW must get special care that is different from normal babies in general to maintain their condition. LBW treatment can be done by maintaining body temperature, preventing infection, monitoring nutrition/breast milk, and monitoring body weight (Rukiyah, 2012). LBW treatment in the NICU room is an unexpected event by parents and can cause anxiety, the results of the study were 50% of mothers who had LBW and were treated in the perinatology room, mothers experienced moderate anxiety levels, 31.2% experienced severe anxiety and 18.8% experienced mild anxiety (Wahyu Hendiyanto, 2014).

LBW can be treated at home when the baby's health condition is stable. Early discharge is what mothers expect when they feel ready and able to care for their babies at home. The results showed that the mother's knowledge about the implementation of low birth weight care at home was still in the category of insufficient in maintaining the temperature and warmth of the baby, namely as much as 75.56% (Ningsih, Suryantoro, & Nurhidayati, 2017).

Mothers need opportunities to get to know their babies and learn to feel ready to meet their babies' needs. One of the health service efforts that can be done is nurses providing health education to mothers about baby care, maternal self-care, home safety and security and immunization (Maryunani, 2013). The level of education can affect a person's ability to receive information received, so that it can affect a person's attitude and behavior (S Notoatmodjo, 2014). The results showed that there was a significant relationship between mother's education and knowledge with breastfeeding attitudes (Widiyanto, Aviyanti, & A, 2012), however, apart from the level of education, there are several other factors

The results showed that the level of confidence of mothers who gave birth to LBW was lower in carrying out baby care compared to mothers who gave birth to normal birth weight babies (Padila, Amin, & Rizki, 2018). The preliminary study conducted at the Kendal Regional Hospital used a questionnaire measuring instrument with 8 LBW parents in the Perinatology room in Kendal Regency, 5 parents were not ready to care for LBW. Based on the existing phenomena, the researchers are interested in researching the relationship between mother's education level and readiness to care for low birth weight.

## **METHOD**

This research is a correlation research, using a cross-sectional design. The population of this study were parents who had low birth weight babies who were treated in the perinatology room of the Kendal area hospital using accidental sampling techniques, the number of samples was 40 respondents. The research instrument used a questionnaire, test the validity and reliability of the questionnaire conducted at Dr. H. Soewondo Kendal on 17 May to 4 June 2017 using 20 respondents. Based on the validity test, the value of  $r$  count from 35 statements about readiness is  $0.671 - 915 > \text{table } 0.444$  means that 35 question items are declared valid, while for the reliable test it is known that the  $\alpha$  value is 0.980, so the research question item is declared reliable. Univariate analysis used frequency distribution while for bivariate analysis used the spearment test to determine the relationship between parental education level and readiness to care for LBW. The inclusion criteria in this study were parents who had LBW and were treated in the perinatology room of the Kendal area hospital, parents could read and write, while the exclusion criteria included parents with mental disorders, babies who were transferred to the hospital outside the Kendal area.

## RESULTS AND DISCUSSION

Tabel 1.  
 The frequency distribution of characteristics of mothers who have LBW  
 at Regional Hospital of Kendal

Variable	f	%
level of education		
Primary school	10	25.0
Junior high school	13	32.5
Senior High School	15	37.5
College	2	5.0
Age		
Less than 25 years	11	27.5
More than or 25 years	29	72.5
The Readiness of parents to care for LBW		
Ready	27	67.5
Not ready	13	32.5
Profession		
Doesn't work	23	57.5
Work	17	42.5

Table 1, it shows that the majority of mothers have a Senior high school education level, namely 37.5%, aged  $\geq 25$  years as much as 72.5%, most parents are ready to care for LBW, namely 67.5%, while mothers who are not ready to care for LBW, namely 32.5%, the majority of mothers do not work as much as 57.5%.

Tabel 2.  
 Relationship between Mother's Education Level and Readiness to Care for LBW (n=40)

level of education	Readiness of parents to care for LBW				Total	P Value
	Not Ready		Ready			
	f	%	f	%		
primary school	3	30.0	7	70.0	10	100
junior high school	4	30.8	9	69.2	13	
senior High School	6	40.0	9	60.0	15	
College	0	0.0	2	100	2	

Table 2, it shows that there is no relationship between the level of mother's education and the readiness to care for Low Birth Weight Babies (LBW) with a P-value of 0.905, mothers with elementary, junior high, high school and tertiary education levels are mostly ready to care for LBW however, there are still mothers who not treated as low birth weight.

This study shows that most mothers who have LBW are aged  $\geq 25$  years, as much as 72.5% of the total sample. The mother's age is an indicator in the maturity of every decision making that refers to each of her experiences. The younger the mother's age, the less experience the mother has, so that it affects the mother's unpreparedness in receiving LBW (Soekidjo Notoatmodjo, 2012).

Mothers who have grown up will be more mature and more prepared to face problems in their lives, including when facing LBW. The increasing age is expected to increase the experience, knowledge and information in his life so that mothers are able to care for or are ready to care for LBW, but not all mothers who are older will be more ready to care for LBW.

Age is not the only cause of readiness in mothers to care for LBW. Young mothers also make it possible to have the readiness to care for LBW because of their ability to receive, process information and form a sense of readiness through cognitive processes. Adaptive coping when facing problems or difficult situations such as giving birth to LBW, mothers still feel capable of providing care for their babies.

The results showed that the readiness of mothers to care for premature babies after returning from Kediri Hospital, which states that the knowledge, attitudes, skills and readiness of mothers to care for premature babies are not related to the age of the respondent. (Erna Rahma Yani, 2009). The results of the study identified that there was no relationship between the level of maternal education and the readiness to care for Low Birth Weight Babies (LBW) with a P-value of 0.905. Most of the mothers who gave birth to LBW had a high school education level, namely 37.5%.

The level of education determines the ease with which a person absorbs and understands knowledge about LBW. The level of education can also influence the way mothers think and see how to care for LBW (Soekidjo Notoatmodjo, 2012). Knowledge is a guide for someone in forming an action. Knowledge of babysitting tasks can be influenced by previous experiences of caring for babies

Mothers who have higher education are expected to have a better level of knowledge in caring for low birth weight so that mothers with higher education have better readiness than mothers with low education. mothers who have tertiary education should also have the maturity to think, the ability to receive and process information so that they are ready to care for LBW, but a high level of education will not necessarily make mothers ready to care for babies. In line with the times, information or knowledge is not only obtained in formal education, mothers can increase their knowledge in various ways, for example reading from the internet, tabloids, and so on. The ease of finding information has led to higher formal education which does not guarantee that mothers will be better prepared to care for babies.

The results of previous studies stated the same thing, namely that there was no relationship between the level of education and the level of self-efficacy with a p-value  $> 0.05$  (Suyami, 2013). This research is also supported by Yani (2009) which states that most mothers who have premature babies have primary to secondary education, but are skilled in caring for premature babies. Statistically, there is no significant relationship between the level of education and the skills of mothers in caring for premature babies (Erna Rahma Yani, 2009). Readiness is not only influenced by the level of education, age can also affect a person's readiness. Based on the research results, the more mature the wife and husband are when married, the more mature their readiness to be parents and the better the psychosocial stimulation that is given to children (Setyowati, Krisnatuti, & Hastuti, 2017).

## CONCLUSION

Based on the univariate analysis, it was found that the majority of mothers had a high school education level, namely 37.5%, aged  $\geq 25$  years 72.5%, most parents were ready to care for

LBW, namely 67.5%, while mothers who were not ready to care for LBW, namely 32.5%, the majority of mothers did not work 57.5%. Based on the Spearment test, it shows that there is no relationship between the level of mother's education and the readiness to care for Low Birth Weight Babies (LBW) with a P-value of 0.905.

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