

## Analysis the Effect of Midwife Assistance on Knowledge, Motivation, and Attitudes of Mothers to Care LBW Independently in Singosari Regional Health Center in Malang Regency

### ABSTRACT

**Yulida Tiani**

Magister of Public Health Program of  
Institut Ilmu Kesehatan STRADA  
Indonesia

**Email:**

yulidatiany@gmail.com

Low birth weight (LBW) is a major cause of death in children under the age of 5 years. East Java has a prevalence of LBW higher than the national prevalence so reduce the prevalence of LBW is needed. The assistance of midwives to increasing maternal independence in treating LBW has the potential for reduce the mortality of LBW. The purpose of this study is to analyze the effect of midwives assistance on mothers' knowledge, motivation, and attitude to care for LBW independently in the Singosari public health center in Malang Regency, East Java. This study uses a quasi experimental control-group pretest-posttest research design and is taken using purposive sampling. Samples were mothers of LBW in the Singosari Regional Health Center in Malang Regency totaling 30 people. The sample was divided into two groups, each consisting of 15 mothers. In the intervention group, 4 visits were given assistance. The results of this study indicate that there are differences in the midwife assistance to the control group on the knowledge, motivation and attitudes of mothers in caring for LBW by value with  $p = 0.000$ ,  $p = 0.000$  and  $p = 0.023$  from the sig t independent. The midwives assistance increase the knowledge, motivation and attitudes of mother's skill in terms of maintaining temperature, kangaroo methods, giving breast milk, preventing infection, and caring for the umbilical cord. Midwife assistance can be an alternative treatment for health workers to prepare mothers to care for LBW independently.

**Keywords:** Analysis, Attitude, Midwife Assistance, Motivation, Knowledge

*Received : October 12, 2019*

*Accepted : February 13, 2020*

*Published : May 15, 2020*



*This is an open-access article distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International License.*

## INTRODUCTION

Infant Mortality Rate is the main indicator of improving the status of health status in the community (Abdiana, 2015). Prematurity and low birth weight (LBW) are the main causes of death in children under 5 years of age. In Indonesia, the prevalence of LBW is around 10.2% and the prevalence in East Java is 11.2% (Kementrian Kesehatan, 2014). Based on Malang's Health Profile in 2013 LBW cases estimated to 1,402 (3.21%) from 43,669 live births and in 2014 LBW cases increased by 1,497 (3.45%) from 43,353 live births (Dinas Kesehatan, 2015).

LBW has a high risk of mortality due to infection, difficulty in breathing, hypothermia and lack of breastfeeding reflexes or nutritional disorders can occur (Elizabeth, Christopher and Patrick, 2013). This is due to metabolic and immune functions in infants that are not yet perfect. Therefore, LBW requires special care from health workers and from the mother of the baby.

Health workers who dedicate themselves in the field of health who have the knowledge and skills to make maternal and child health efforts are midwives. Assistance of midwives plays an important role in improving the quality of health. Several studies have shown that the assistance of officers affects the knowledge, motivation, and attitude of mothers in caring for their babies (Mulyani, Cahyanto and Soetrisno, 2012; Suryaningsih, 2012).

Malang Regency is one area that has a high IMR. The results of observations and interviews with several mothers who have LBW show that the reason for not being able to be independent is the fear of holding and caring for their baby. This attitude causes the mothers to hand over their baby's care to the dukun. Therefore, midwifery assistance for LBW mothers needs to be done especially in the Singosari Regional Coordinating Puskesmas.

The purpose of this study was to analyze the effect of midwives assistance on the knowledge, motivation, and attitude of mothers to carry out LBW treatments independently in the Singosari coordination area Puskesmas Malang Regency.

## METHODS

This study uses a quasi experiment control-group pretest-posttest design research method and is taken using purposive sampling. Samples were mothers of LBW in the Singosari Regional Health Center in Malang Regency totaling 30 people. The sample was divided into two groups, each group consisting of 15 mothers. Data collection using a questionnaire to LBW infants at visit 1 and visit 4. The intervention group was given assistance 4 times. The material in the intervention group goes through 4 stages, early ( $\geq 24$  hour– a week) kanggoro method, maintain neonatal temperature, bathe neonates, cord care, diaper changes. Last two weeks with breastfeeding technique, exclusive breastfeeding, breast care. Last three weeks with neonatal infection control assistance, sign and symptoms of neonatal infection. Last four weeks with LBW care observation.

## RESULTS

The results presented should be sequence from the main results to the supporting results. Use measurement units based on applicable international standards. Can be added diagrams, tables, pictures, and graphs with complete with narration.

Images and tables are placed at the end of the manuscript by following the rules: 1) drawings, tables, and diagrams should be editable; 2) the title of the image and the table is written at the top with times new romance 11, single space; 3) narrative images and tables are written at the bottom of the tables and drawings; 4) table contents using times new roman 10, single space.

**Table 1 Distribution Frequency Characteristics of Respondents**

Characteristics	Control group (n=15)	Intervention group (n=15)
<b>Mother's age</b>		
<20	2 (13,3%)	0 (0%)
20-25	9 (60%)	7 (46,7%)
26-30	0 (0%)	5 (33,3%)
31-35	1 (6,7%)	1 (6,7%)
>35	3 (20%)	2 (13,3%)
<b>Education</b>		

Elementary School	3 (20%)	1 (6,7%)
Junior High School	7 (46,7%)	3 (20%)
Senior High School	5 (33,3%)	10 (66,7%)
Diploma	0	1(6,7%)
<b>Work</b>		
Private Employees	7 (46,7%)	0 (0%)
Entrepreneur	2 (13,3%)	2 (13,3%)
Housewife	2 (13,3%)	3 (20%)
Others	4 (26,7%)	10 (66,7%)
<b>Newborn gender</b>		
Male	6 (40%)	7 (46,7%)
Female	9 (60%)	8 (53,3%)
<b>Number of Child</b>		
First Child	8 (53,3%)	8 (53,3%)
Second Child	4 (26,7%)	5 (33,3%)
Third child or more	3 (20%)	2 (13,3%)
<b>Postpartum History</b>		
Sectio Caesaria	4 (66,7%)	5 (33,3%)
Oxytocin Drip	1 (6,7%)	0 (0%)
Normal	10 (26,7%)	10 (66,7%)

Based on the result of the study of table 1, it was mentioned that the majority of mother's age was 20-25 years old, mostly in educated in senior high school, mostly newborn gender is female, mostly number of child is first child, and mostly postpartum history is normal.

Table 2. Statistic test For Knowledge in Intervention and Control Group

Group	Mean	(SD)	Z	p (2-tailed)
Intervention	91,99	5,16	4,422	0,000
Control	79,11	10,03		

According to independent t test above shows that the significance is  $p < 0,000$ . It means that, there was a different knowledge in intervention and control group.

Table 3. Statistic test For Attitude in Intervention and Control Group

Group	N	Mean Rank	Z	p (2-tailed)
Intervention	15	22,40	4,351	0,000
Control	15	8,60		

According to Mann Whitney test above shows that the significance is  $p < 0,000$ . It means that, there was a different knowledge in intervention and control group.

Table 4. Statistic test For Attitude in Intervention and Control Group

Group	N	Mean Rank	Z	p (2-tailed)
Intervention	15	11,87	2,272	0,023
Control	15	19,13		

According to Mann Whitney test above shows that the significance is  $p < 0,023$ . It means that, there was a different knowledge in intervention and control group.

## DISCUSSION

In this study an increase in maternal knowledge in the intervention group (Table 2). This is because the intervention group was given assistance by the midwife. Assistance by midwives can increase knowledge from BBLR mothers. Assistance of midwives will influence the insight, experience, and belief of mothers in caring for LBW independently. This is consistent with Notoatmodjo's theory (2010) which states that one of the factors that influence education is insight, experience, and belief (Notoatmodjo, 2010).

The results of this study are consistent with previous studies. Research conducted by Rita Magdalena (2012) with the title *Mother Knowledge About Management of LBW Infants at Home in RSKIA Bandung* was found in maintaining temperature and warmth (75.56%) having less knowledge, giving ASI (42.22%) having knowledge enough and prevent infection (44.45%) have less knowledge. In this study aspects of maintaining temperature consist of three aspects, namely the method of kangaroo, protecting the baby's environment, and bathing the baby. In the aspect of maintaining temperature on the topic of maintaining the environment of the baby most respondents have less knowledge (80%). In the aspect of giving ASI consists of several aspects, namely the benefits of ASI, breastfeeding position, how to give ASI and the time of giving, ASI storage, weighing the weight of a LBW baby. In the aspect of breastfeeding, there are aspects that have the highest level of lack of knowledge, namely the time of breastfeeding and storage, weighing (33.33%). In the aspect of infection prevention, this study consists of several aspects, namely lifting the baby, recognizing the signs of infection and preventing infection, umbilical cord care, changing diapers, and applying powder. In this aspect, there is an aspect with the highest lack of knowledge value, namely diaper change (73.33%) (Rita Magdalena, 2012).

Significant differences in the motivational variables are due to the influence of midwife assistance (table 3). Midwives who accompany can educate mothers about LBW care for mothers. The results of this study are also aligned with the education variable. Assistance can increase the mother's knowledge so that it affects the willingness of mothers to care for LBW babies. In addition, assistance by midwives can also increase maternal extracurricular motivations. This is because midwives who provide assistance also motivate the families of LBW mothers. An increase in maternal family motivation can increase extrinsic motivation of mothers to care for LBW.

The results of this study are similar to the research by Rahmaliza Harseni in 2019. Research conducted by Rahmaliza Harseni (2019) with the title *Relationship Factors of Mother Motivation Towards Exclusive Breastfeeding in Lapai Public Health Center in Padang*, obtained variables that have a relationship with exclusive breastfeeding with a significant level  $<0,05$  namely the intrinsic motivation variable, extrinsic motivation. In that study showed that there were 19 out of 24 (79.2%) of mothers who received poor intrinsic motivation and did not provide exclusive breastfeeding to infants. Meanwhile, based on extrinsic motivation shows that there are as many as 24 out of 30 (80%) mothers get extrinsic motivation that is not good and does not provide exclusive breastfeeding to infants (Harseni, 2019).

In this study the change in mother's attitude in caring for LBW is due to midwife assistance (table 4). Mentoring midwives increases the knowledge, motivation, and attitude of mothers in caring for LBW. Increased knowledge of mothers will motivate mothers internally to care for LBW independently. In addition, good motivation in treating LBW independently is an internal factor that can improve good attitude in caring for LBW. In addition, this increase can also be influenced by external factors such as group communication and interaction. The intended communication is the exchange of information from different individuals. While group interactions such as family support for mothers in caring for LBW (Rahman, 2016)

Research conducted by Latifatun Nasihah, (2015) with the title *Application of Path Analysis in the Analysis of Factors Determining Exclusivity of Breastfeeding in the Work Area of Payangan Health Center, Gianyar* found that the relationship of maternal knowledge influences the attitudes of mothers (Nasihah, 2015).

Further research is needed to find out other factors such as parity, quality of assistance, and behavior that can influence mothers in LBW care and use different centers to obtain results that can be applied on a wider scale. As well as needing further research using online assistance and digital media applications

## CONCLUSION

1. Mother's knowledge in caring for LBW before being given assistance to the intervention group is on average lacking in LBW care.
2. Mother's knowledge in treating LBW after being given assistance in the intervention group increased in doing LBW treatment on average.
3. Motivation of mothers before being given assistance in the intervention group on average has less motivation in performing LBW care.

4. Motivation of mothers after being given assistance in the intervention group on average has increased motivation in conducting LBW care.
5. The attitude of the mother before being given assistance in the intervention group on average has a lack of attitude in carrying out LBW care.
6. The attitude of mothers in caring for LBW after being given assistance in the intervention group on average has an increased attitude in performing LBW care.
7. Midwife Assistance affects the knowledge, motivation and attitudes of mothers in caring for LBW independently

#### REFERENCE

- Abdiana. (2015). Determinan kematian bayi di kota payakumbuh. *Jurnal Kesehatan Masyarakat Andalas*, 9(2), pp. 88–92.
- Dinas Kesehatan. (2015). *Profil Kesehatan Kabupaten Malang*, pp. 1–226.
- Harseni, Rahmaliza. (2019). Hubungan Faktor Motivasi Ibu terhadap Pemberian ASI Eksklusif di Puskesmas Lapai. *Jurnal Bidan Komunitas*, 11 (2), 89-92, doi: 10.33085/jbk.v2i2.4329
- Magdalena, Rita. (2012). Pengetahuan Ibu Tentang Penatalaksanaan Perawatan Bayi BBLR Di Rumah Di Rskia Kota Bandung. *Tarigan*, 1 (1):1-15
- Mulyani, S., Cahyanto, E. B. and Soetrisno. (2012). Dukungan Petugas Kesehatan Dengan Model Pendampingan Terhadap Pemberian Asi Eksklusif. *Jurnal Placentum*, 1(1), pp. 84–92.
- Notoatmodjo, S. (2010). *Metodologi Penelitian Kesehatan*. Jakarta : Rineka Cipta Suryaningsih, C. (2012). Pengaruh Demonstrasi dan Pendampingan Menyusui Terhadap Motivasi dan Kemampuan Ibu dalam Pemberian ASI. Universitas Indonesia.
- Rahman, M. S., Howlader, T. and Masud, M. S. (2016). Association of Low-Birth Weight with Malnutrition in Children under Five Years in Bangladesh : Do Mother ' s Education , Socio-Economic Status , and Birth Interval Matter . *PlosOne*, 23, pp. 1–16.