



## The Effectiveness of Oral Stimulation on the Suction Reflex in LBW Babies in the Perinatology Room at RSUD dr. Abdul Rivai Berau

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| ARTICLE INFO   | ABSTRACT  |
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| <p><b>Article history:</b></p> <p>Received Mar 17, 2024<br/>Revised Mar 19 2024<br/>Accepted Mar 22, 2024</p> <p><b>Keywords:</b></p> <p>Low Birth Weight;<br/>Oral Stimulation;<br/>Suction Reflex.</p> | <p>Efforts to treat Low Birth Weight (LBW) babies to increase body weight while in hospital is by providing direct breast milk; however, there is a weakness in suction power in LBW babies. Oral stimulation is necessary to increase the suction reflex to overcome this. This study aimed to determine the effectiveness of oral stimulation on the sucking reflex in LBW babies. This was a pre-experimental study and One Group Pre-Test – Post-Test design without a control group. The population was LBW babies in the Perinatology Room at dr. Abdul Rivai Hospital has 30 babies, based on the Roscoe formula, and has a sample of 20 people. Data analysis used the Friedman test. Characteristics of respondents: mostly gestational age 28-36 weeks (60%), female gender (60%), baby weight between 1,500-2,499 grams (55%), mother's age &gt; 35 years (50%), mother's education graduated from high school (47.1%), parity of multiparous mothers (60%) and mother's occupation as housewife (60%). The sucking reflex in LBW babies before being given oral stimulation was completely lacking by 20 respondents (100%). The sucking reflex in LBW babies after being given oral stimulation was perfect for 20 respondents (100%). Oral stimulation was influential on the sucking reflex in LBW babies (p-value = 0.000 &lt; <math>\alpha</math>: 0.05). This indicates that oral stimulation is effective on the sucking reflex in LBW babies. Hospitals are expected to make oral stimulation of Standard Operational Procedure for routine activities carried out by nurses and physiotherapists to improve the sucking reflex in LBW and LBW babies.</p> <p><i>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license.</i></p>  |

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### 1. Introduction

Low Birth Weight Babies (LBW) are babies born with a weight of less than 2500 grams, which is a health problem that contributes to the infant mortality rate. Every year, of the 20 million births worldwide, it is estimated that 15-20% of babies are born with LBW (WHO, 2021). These babies are not only at risk of dying in the first months of life, but are also at risk of experiencing other health problems (Unicef, 2019).

Based on the risk of LBW, the government is trying to reduce the number of LBW, with the incidence of LBW becoming a global focus as stated in the Sustainable Development Goals (SDGs). By

2025, the target is to reduce the LBW rate by up to 30%. This means that every year in the period 2012 - 2025 there will be at least a relative decline in the LBW rate by 3% or a decrease in the LBW rate from 20 million to 14 million (WHO, 2021). However, the incidence of LBW remains high, according to data from the World Health Organization (WHO), which reports that babies with low birth weight contribute 80% of neonatal deaths more than babies with normal weight. In Southeast Asia, the highest is in the Philippines at 20%, followed by Myanmar at 15% and Laos at 14%, while the lowest is in Singapore at 8%, followed by Thailand and Vietnam at 9% while in Indonesia the incidence of low birth weight babies is 7.5% (WHO, 2021).

The incidence of LBW in Indonesians is still the leading cause of neonatal death (Republic of Indonesia Ministry of Health, 2020). Year 2021 namely 14% or 710,000 of the 5 million babies born per year experience LBW (Ministry of Health of the Republic of Indonesia, 2021). In East Kalimantan Province, the highest cause of LBW infant mortality in 2019 was 37.1%, with LBW cases in East Kalimantan Province in 2019 amounting to 4.9%. As for cases of infant death (0-11 Months) in Berau Regency in 2019 there were 100 babies, with as many LBW cases as much as 5.3% (East Kalimantan Provincial Health Office, 2020).

The prevalence of LBW incidents is due to risk factors that influence LBW incidents, among others maternal factors in the form of chronic disease includes complications, suffering from diseases such as malaria, sexually transmitted infections, hypertension or high blood pressure, HIV/AIDS, TORCH disease, heart disease or drug abuse, smoking and alcohol consumption. Maternal geography such as maternal age at pregnancy < 20 years or more than 35 years, gestational age, birth distance that is too close or short from one child to the child to be born (less than 1 year), first parity and parity more than 4 and previous history of LBW. Socioeconomic conditions in the form of poor socio-economic conditions lead to poor nutritional status, excessive physical activity. For infant factors such as fetal chromosomal abnormalities, chronic fetal infections (inclusion cytomegaly, congenital rubella, fetal distress, and multiple pregnancies), placental factors such as hydramnios, placenta previa, placental abruption, twin transfusion syndrome (parvovirus syndrome), premature rupture of membranes. Environmental factors include living at high altitudes, exposure to radiation, and exposure to toxic substances (Proverawati and Ismawati, 2020).

One of the efforts to care for LBW babies to gain weight while in hospital is by direct breastfeeding. However, LBW babies have internal weakness suction power (Saputro & Megawati, 2019), so nurses in the nursery should have good skills in carrying out oral stimulation from training and learning processes. Apart from that, nurses are health workers whose job is to provide nursing care for babies (Anggraini et al., 2022).

The sucking reflex in babies is associated with the maturity of the baby's nerve structure and the strength of the mouth muscles. The process of sucking and swallowing is a coordination between the digestive, musculoskeletal, respiratory and nervous systems (Dewi, 2018; Lau, 2016). According to (da Rosa Pereira et al., 2020) states that babies turn towards the cheek being stroked, this sucking reflex disappears at the age of 3-4 months but can persist for up to 12 months, especially during sleep.

Method oral stimulation has begun to be socialized, and is preferred because it is safer and cheap. Through touch and stimulation mainly muscle tissue in the area around the mouth can improve blood circulation, improve muscle function and stimulates the suction reflex on babies, especially LBW babies and can improve the function of other body organs. Premature babies' oral skills are shared into 4 phases, namely the development of reflexes sucking, maturity of the swallowing process, maturity of respiratory function, coordination sucking, swallowing and breathing movements. The sucking reflex component has begun present since 28 weeks of gestation, however the synchronization is still irregular, and the baby easily experience fatigue. In line with ripening process, then the mechanism that more regularity will be obtained with age 32-36 weeks of pregnancy (Saputro & Megawati, 2019).

Oral stimulation is important for LBW babies because massage causes muscle blood flow to increase. An increase in good nerve activity will cause the baby to become hungry quickly, which will have the effect of stimulating the sucking reflex and the mother will breastfeed more often, resulting in rapid weight gain. In addition, oral stimulation performed on premature babies can activate the main pattern generator (Fatimah & Purwaningsih, 2022).

Supported by previous research conducted (Syaiful et al., 2019) shows that there is an influence of oral stimulation on the sucking reflex in LBW babies. So as (Niatul, 2021) the influence of oral stimulation on the sucking reflex in low birth weight (LBW) babies in the perinatology room at Bangil Regional Hospital. Based on this phenomenon, an analysis will be carried out on the effect of oral stimulation on the sucking reflex in all babies, especially LBW babies, through collaboration between doctors, nurses and physiotherapists. This research emphasizes the importance of LBW management, especially in the context of increasing infant weight gain during hospitalization. Focusing on efforts such as oral stimulation to improve breastfeeding reflex in low birth weight infants can make a significant contribution to improving infant health and survival.

## 2. Research Methods

This type of research uses a pre-experiment and this research design uses a One Group Pre-Test – Post-Test Design without a Control Group. This means that there is no control group in this study, that is, all samples were given intervention. The population used in this study were LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai as many as 30 babies and a sample of 20 respondents based on considerations from sample calculations according to Roscow. Data analysis includes Normality Test, Univariate Analysis and Bivariate Analysis using SPSS 23.

## 3. Results and Discussions

### 3.1 Univariate Analysis

#### a. Gestational Age

Characteristics of respondents' gestational age LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 1. Characteristics of respondents' gestational age LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Gestational Age        | f  | Percentage (%) |
|------------------------|----|----------------|
| < 37 weeks (premature) | 15 | 75             |
| 37-42 weeks (mature)   | 5  | 25             |
| Amount                 | 20 | 100            |

Source: Primary Data, 2023

#### b. Baby Gender

Respondent gender characteristics LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 2. Gender characteristics of respondents LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Gender | f  | Percentage (%) |
|--------|----|----------------|
| Man    | 8  | 40             |
| Woman  | 12 | 60             |
| Amount | 20 | 100            |

Source: Primary Data, 2023

#### c. Baby's Weight

Respondents' weight characteristics LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 3. Respondents' weight characteristics LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Weight                  | f  | Percentage (%) |
|-------------------------|----|----------------|
| 1,500-2,499 grams (LBW) | 11 | 55             |

|                          |    |     |
|--------------------------|----|-----|
| 1,000-1,499 grams (BLSR) | 9  | 45  |
| Amount                   | 20 | 100 |

Source: Primary Data, 2023

#### d. Mother's Age

Characteristics of the respondent's mother's ageLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 4. Age characteristics of respondents' mothersLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Characteristics | f  | Mean  | Median | Minimal | Maximum |
|-----------------|----|-------|--------|---------|---------|
| Age             | 20 | 30.95 | 32     | 18      | 40      |

Source: Primary Data, 2023

#### e. Mother's Education

Characteristics of the respondent's mother's educationLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 5. Educational characteristics of respondents' mothersLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Mother's Education         | f  | Percentage (%) |
|----------------------------|----|----------------|
| Finished elementary school | 2  | 10             |
| Finished middle school     | 6  | 30             |
| Finished high school       | 12 | 60             |
| Amount                     | 20 | 100            |

Source: Primary Data, 2023

#### f. Parity

Parity characteristics of respondent mothersLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 6. Parity characteristics of respondent mothersLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Maternal Parity | f  | Percentage (%) |
|-----------------|----|----------------|
| Primipara       | 3  | 15             |
| Multiparous     | 12 | 60             |
| Grandmultipara  | 5  | 25             |
| Amount          | 20 | 100            |

Source: Primary Data, 2023

#### g. Mother's Job

Job characteristics of the respondent's motherLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 7. Job characteristics of respondents' mothersLBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Mother's Job            | f  | Percentage (%) |
|-------------------------|----|----------------|
| Not Working/IRT         | 12 | 60             |
| Trader/Entrepreneur     | 5  | 25             |
| Private sector employee | 3  | 15             |
| Amount                  | 20 | 100            |

Source: Primary Data, 2023

### 3.2 Suction reflex in LBW babies before and after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau.

Identify scores Suction reflexes in LBW babies before and after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau, can be seen in the following table:

Table 8. Scorer Suction reflexes in LBW babies before and after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Score       | N  | Mean | Min | Mak | Std. Deviation | CI 95%      |
|-------------|----|------|-----|-----|----------------|-------------|
| Pre-test    | 20 | 37.2 | 36  | 40  | 1,881          | 35.40-38.00 |
| Post test 1 | 20 | 40   | 36  | 44  | 3,179          | 38.6-41.2   |
| Post test 2 | 20 | 43.2 | 36  | 52  | 3,806          | 41.4-44.8   |
| Post test 3 | 20 | 45.6 | 36  | 52  | 3,979          | 43.8-47.2   |
| Post test 4 | 20 | 48.6 | 36  | 56  | 4,358          | 46.6-50.4   |
| Post test 5 | 20 | 51.8 | 44  | 64  | 4,584          | 50.0-53.8   |
| Post test 6 | 20 | 58.2 | 48  | 76  | 7,046          | 55.4-61.4   |
| Post test 7 | 20 | 65.8 | 52  | 84  | 7,838          | 62.6-69.4   |

Source: Primary Data, 2023

Based on Table 8 it is obtained that the scorer Suction reflex in LBW babies before being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau with a mean value of 37.2; minimum score 36; maximum value 40; standard deviation 1.881; and CI 95 between 35.40 and 38.00. Scorer Suction reflex in LBW babies after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau in post test 1 with a mean value of 40. Post test 2 with a mean value of 43.2. Post test 3 with a mean value of 45.6. Post test 4 with a mean value of 48.6. Post test 5 with a mean value of 51.8. Post test 6 with a mean value of 58.2. Post test 7 with a mean value of 65.8.

### 3.3 Bivariate Analysis

Analysis the effectiveness of oral stimulation on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai Berau, based on The non-parametric bivariate analysis used was the Wilcoxon test, can be seen in the table below:

Table 9. The effectiveness of oral stimulation on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai Berau

| Variable    | N  | Mean Rank | Sig.  |
|-------------|----|-----------|-------|
| Pre-test    | 20 | 1.48      |       |
| Post test 1 | 20 | 2.05      |       |
| Post test 2 | 20 | 3.25      |       |
| Post test 3 | 20 | 3.83      |       |
| Post test 4 | 20 | 4.85      | 0,000 |
| Post test 5 | 20 | 5.75      |       |
| Post test 6 | 20 | 6.83      |       |
| Post test 7 | 20 | 7.98      |       |

Source: Primary Data, 2023

Based on Table 9 The mean pre test score was 1.48; then post test 1 increased by 2.05; post test 2 increased by 3.25; post test 3 increased by 3.83; post test 4 increased by 4.85; post test 5 increased by 5.75; post test 6 increased by 6.83 and post test 7 increased by 7.98. The sig value is 0.000 < 0.05 so that  $H_a$  is accepted, namely that oral stimulation is effective on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai. More clearly can be seen in the following diagram:

### 3.4 Discussion

#### Respondent Characteristics

### a. Gestational age

Based on the research results, it is known that respondent's gestational age LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau the majority < 37 weeks (premature) were 15 respondents (75%), while 37-42 weeks (mature) there were 5 respondents (25%).

The results of this study are in accordance with (Syaiful et al., 2019) research showing that the gestational age is mostly 28-36 weeks. Research by Pramesti and (Noviana & Kartini, 2023) shows that the gestational age is mostly 28-36 weeks. Meanwhile, research by (Saputro & Megawati, 2019) shows that the gestational age is mostly 36-38 weeks.

The results of (Rinata & Iflahah, 2015) research on the relationship between gestational age and birth weight on breastfeeding techniques in Sidoarjo show that babies with term gestation show better breastfeeding techniques than preterm babies. While (da Costa et al., 2010) conducted research on the development of the sucking reflex in very premature and moderately premature babies, the results showed that very premature babies developed the sucking reflex more slowly than moderately premature babies.

Researchers assume that the respondents in this study respondent's gestational age LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau most < 37 weeks (premature). This shows that the sucking reflex has not yet emerged if birth occurs before the 32nd week and will not be perfect if the baby is born before the age of 36 weeks, so the smaller the gestational age, the more difficult it is for the baby to coordinate sucking.

### b. Baby's gender

Based on the research results, it is known that respondent's gender LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau Most of the women were 12 respondents (60%), while men there were 8 respondents (40%).

The results of this study are in accordance with research by (Sutini & Hariyanto, 2021) showing that the gender of the babies is mostly female. research shows that the gender of the babies is mostly female. Meanwhile, research by Suryanti (2021) shows that the gender of the babies is mostly male.

World Health Organization Technical Consultation WHO states that at the same gestational age, male babies are heavier than female babies. According to the 2018 Riskesdas results, the percentage of LBW for men is lower than for women. The mechanism by which a baby's gender influences birth weight is not yet clearly known, although the birth weight of boys tends to be higher. This is thought to be the influence of androgen hormones, differences in maternal fetal antigens or genetic material on the Y chromosome which affects growth (Hasanah, 2021).

Researchers assume that the majority of respondents in this study female gender. Where gender is not a risk factor for LBW, however there is a tendency for female babies to be more at risk of LBW, this is because female babies tend to have a lower body weight than boys.

### c. Baby's Weight

Based on the research results, it is known that respondent's weight LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau most of the LBW are between 1,500-2,499 grams amounted to 11 respondents (55%), while BBLSR is between 1,000-1,499 grams there were 9 respondents (45%).

The results of this study are in accordance with research by (Sutini & Hariyanto, 2021) showing that the majority of babies' weight 1,500-2,499 grams. Rinata's research (2019) shows that the majority of babies' weight 1,500-2,499 grams. Meanwhile, Suryanti's research (2021) shows that the majority of babies' weight 1,000-1,499 grams.

Researchers assume that the majority of respondents in this study respondent's weight baby between 1,500-2,499 grams. Where in this study there were mothers with multiple pregnancies, namely 1 mother who had triplets and 1 mother who had twins, so the babies tended to be LBW. As for Babies who have a large body weight will try harder to meet their body's nutritional needs compared to babies with a small body weight, so this will affect the baby's sucking reflex.

**d. Maternal age**

Based on the research results, it is known that average age of respondents' mothers LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau of 30.95, with a median value of 32, a minimum value of 18 and a maximum value of 40.

The results of this study are in accordance with research by (Sutini & Hariyanto, 2021) showing that the majority of mothers are > 35 years old. (Pertiwi et al., 2023) shows that the majority of mothers are > 35 years old. Meanwhile, research by Suryanti (2021) shows that the majority of mothers are 20-35 years old.

One of the factors causing LBW is maternal factors, namely maternal age < 20 and > 35 years. In the period of healthy reproduction, it is known that the safe age for pregnancy and childbirth is 20-35 years. The mother's age during pregnancy is closely related to the baby's weight. Pregnancies over the age of 35 years are at high risk due to health problems and chronic diseases. A decrease in the function of the reproductive organs can be a cause of complications and difficulties in childbirth (Heriani & Camelia, 2022).

Researchers assume that the average respondent in this study is 30 years old, where pregnancy aged < 20 years can disrupt the process of distributing nutrients from mother to fetus due to the reproductive system not functioning optimally, while pregnancy aged > 35 years can result in a decrease in the function of the reproductive organs.

**e. Mother's education**

Based on the research results, it is known that respondent's mother's education LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau Most of them graduated from high school, 12 respondents (47.1%), while at least they have finished elementary school there were 2 respondents (10%).

The results of this research are in accordance with (Wardani & Novita, 2022) research showing that most mothers have completed high school education. (Saputro & Megawati, 2019) shows that most mothers have completed high school education. Meanwhile, (Syaiful et al., 2019) research shows that most mothers have completed high school education.

Researchers assume that the majority of respondents in this study The mother's education has completed high school, where although the respondent's education is relatively good, there is still a lack of information related to health during pregnancy which can have an impact on babies experiencing LBW.

**f. Parity**

Based on the research results, it is known that parity of the respondent's mother LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau Most of the multiparas were 12 respondents (60%), while the least are primiparas there were 3 respondents (15%).

The results of this study are in accordance with (Wardani & Novita, 2022) research showing that most mothers are multiparous. (Saputro & Megawati, 2019) shows that most of the mothers are grand multiparous. (Syaiful et al., 2019) research shows that most mothers are multiparous.

One of the factors causing LBW is maternal factors, namely parity 1 and  $\geq 4$  children. Mothers who have a high parity status can increase the risk of LBW. Parity is a woman's condition related to the number of children born (Heriani & Camelia, 2022). Researchers assume that the respondents in this study are mostly parity multiparous mothers, where repeated pregnancies will also affect the nutritional circulation of the fetus, this situation causes disturbances in fetal growth resulting in LBW births.

**g. Mother's job**

Based on the research results, it is known that respondent's mother's occupation LBW baby in the Perinatology Room at RSUD dr. Abdul Rivai Berau Most of them are not working/domestic, amounting to 12 respondents (60%), while the fewest are private employees there were 3 respondents (15%).

The results of this study are in accordance with (Wardani & Novita, 2022) research showing that most mothers are housewives. (Saputro & Megawati, 2019) shows that most mothers are housewives. Meanwhile, (Syaiful et al., 2019) research shows that most mothers are housewives.

The category of mothers who do not work in this case is defined as mothers who are not officially tied to an institution for work matters. However, in the daily reality of housewives, it turns out that they have quite a lot of burdens such as doing household work independently (washing, mopping, ironing, cleaning the house, looking after children and so on). This fatigue can also trigger depression in the mother, which can have implications for the health of the fetus. Pregnant women can naturally feel weak and tired quickly. This is due to hormonal changes during pregnancy (Rahim & Muharry, 2018).

Researchers assume that the majority of respondents in this study The mother's job as a housewife, where the large amount of independent household work (washing, mopping, ironing, house cleaning, looking after children, etc.) that is done makes the mother pay less attention to her health during pregnancy, which results in less rest and LBW babies.

#### **h. RSuction reflexes in LBW babies before and after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai.**

Based on the research results, it is known that the scorer Suction reflex in LBW babies before being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau with a mean value of 37.2; minimum score 36; maximum value 40; standard deviation 1.881; and CI 95 between 35.40 and 38.00. Where as scorer Suction reflex in LBW babies after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau in post test 1 with a mean value of 40. Post test 2 with a mean value of 43.2. Post test 3 with a mean value of 45.6. Post test 4 with a mean value of 48.6. Post test 5 with a mean value of 51.8. Post test 6 with a mean value of 58.2. Post test 7 with a mean value of 65.8.

The results of this research are in accordance with (APRILIA DEWINTA et al., 2022) research showing that the suction reflex was weak or lacking before oral stimulation was given to low birth weight babies, then the suction reflex increased after oral stimulation was given to low birth weight babies in the Perinatology room at Bangil Regional Hospital. Study (Saputro & Megawati, 2019) show that all LBW babies have a weak sucking reflex. (Syaiful et al., 2019) showed that the suction reflex before giving oral stimulation showed a lack of suction reflex, namely 15 respondents (54%), then after oral stimulation there was a sufficient increase in the suction reflex, namely 18 respondents (64%).

Researchers assume that the majority of respondents in this study rSuction reflex in LBW babies after being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau became good. This is because oral stimulation interventions can improve functional response to pressure and movement, reach, strength, and control of various lip movements, cheeks, jaw and tongue. As for most of the rSuction reflex in LBW babies before being given oral stimulation in the Perinatology Room at RSUD dr. Abdul Rivai Berau is still lacking.

#### **i. Ethe effectiveness of oral stimulation on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai.**

Based on the research results, it is known that obtained A positive rank of 20 respondents means that 20 respondents experienced an increase in their sucking reflex after oral stimulation. The Z value is -3.942 and the p value is  $0.000 < 0.05$  so that  $H_a$  is accepted, namely that oral stimulation is effective on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai.

The results of this study are in accordance with research (Syaiful et al., 2019) shows that there is an influence of oral stimulation on the sucking reflex in LBW babies. So as Fitriyah (2021) the influence of oral stimulation on the sucking reflex in low birth weight (LBW) babies in the perinatology room at Bangil Regional Hospital. (Saputro & Megawati, 2019) shows that oral stimulation is effective against weak sucking reflexes in LBW.

Researchers assume that the majority of respondents in this study Oral stimulation is effective on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai. This is because oral stimulation has begun to be socialized, and is preferred because it is safer and cheap. Through touch

and stimulation mainly muscle tissue in the area around the mouth can improve blood circulation, improve muscle function and stimulates refl suction on babies, especially LBW babies and can improve the function of other body organs.

#### 4. Conclusion

From the results of research and discussion regarding the effectiveness of oral stimulation on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai Berau, concluded that the characteristics of most respondents were gestational age < 37 weeks (premature) (75%), female gender (60%), baby weight between 1,500-2,499 grams (55%), average maternal age of 30.95, maternal education completed high school (47.1%), parity of multiparous mothers (60%) and maternal occupation as housewife (60%), sucking reflex in LBW babies before being given oral stimulation with a mean value of 37.2. Meanwhile, after being given oral stimulation in post test 1 with a mean value of 40. Post test 2 with a mean value of 43.2. Post test 3 with a mean value of 45.6. Post test 4 with a mean value of 48.6. Post test 5 with a mean value of 51.8. Post test 6 with a mean value of 58.2. Post test 7 with a mean value of 65.8, oral stimulation was effective on the sucking reflex in LBW babies in the Perinatology Room at RSUD dr. Abdul Rivai ( $p$  value =  $0.000 < \alpha : 0.05$ ). The constraints of measuring the sucking ability of the NSS cannot describe the overall results of the suction reflex as a whole, because the results are only measured per minute, which could be that the components of the suction reflex may not be entirely measured subjectively, which could make the results of the study biased. Future research may consider using more comprehensive measurement methods to evaluate the ability to suck in LBW infants. For example, direct and continuous measurement over a longer period of time may provide a better picture of overall breastfeeding reflex development.

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