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HYPNOBIRTHING AND REBOZO AFFECT THE DURATION OF LABOR IN II AND APGAR SCORES

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ABSTRAK : HYPNOBIRTHING DAN REBOZO TERHADAP LAMA PERSALINAN KALA II DAN SKOR APGAR


Tujuan: Mengetahui pengaruh pemberian hypnobirthing dan rebozo terhadap lama persalinan kala II dan skor Apgar.


Hasil: Hasil pengujian Mann-Whitney menunjukkan bahwa pemberian hypnobirthing dan rebozo berpengaruh terhadap lama persalinan kala II, ditunjukkan dari nilai Z sebesar -4.420 dan p sebesar 0,000 (p<0,05). pemberian hypnobirthing dan rebozo tidak berpengaruh terhadap skor Apgar, ditunjukkan dari nilai Z sebesar -- 0,284 dan p sebesar 0,776 (p>0,05).

Kesimpulan: Pemberian hypnobirthing dan rebozo berpengaruh terhadap penurunan lama persalinan kala II, dan tidak berpengaruh terhadap skor Apgar.

Saran: hendaknya bidan membuat suatu video pembelajaran teknik hypnobirthing dan rebozo, agar ibu hamil dapat menerapkan teknik hypnobirthing selama masa kehamilan, dan sebagai pembelajaran bagi bidan agar dapat membantu ibu bersalin dalam melakukan teknik rebozo.

Kata kunci: Skor Apgar, Hypnobirthing, Lama Persalinan Kala II

ABSTRACT

Background: Maternal and infant mortality rates in Indonesia are still high. Long parturition is the cause of 31% of maternal deaths. The 27.4% infant mortality was caused by asphyxia. Asphyxia can be detected by measuring the Apgar score. Giving hypnobirthing and rebozo technique is believed to speed up the duration of the second stage of labor and increase the Apgar score.

Purpose: To determine the effect of hypnobirthing and rebozo on the duration of the second stage of labor and the Apgar score.

Methods: This research is a quasi experiment, with a posttest only design with control group design, where the experimental group was given hypnobirthing and rebozo and the control group was only given hypnobirthing. The population is mothers giving birth at BPM Midwife Dina Garut in the period November – December 2021. The sample of each group is 20 mothers who give birth, taken by purposive sampling. The measurement of the duration of the second stage of labor was used a stopwatch and the Apgar score was used for the Apgar test. Data analysis used the independent sample t test if the research data was normally distributed, and the Mann Whitney test if the research data was not normally distributed.

Result: The results of the Mann-Whitney test showed that hypnobirthing and rebozo had an effect on the duration of the second stage of labor, indicated by the Z value of -4.420 and p of 0.000 (p<0.05). giving hypnobirthing and rebozo had no effect on Apgar score, indicated by Z value of -0.284 and p of 0.776 (p>0.05).

Conclusion: The implementation of hypnobirthing and rebozo had an effect on decreasing the length of the second stage of labor, and had no effect on the Apgar score.
Suggestion: Midwives should make a video learning the hypnobirthing and rebozo techniques, so that pregnant women can apply the hypnobirthing technique during pregnancy, and as a lesson for midwives so they can help mothers in childbirth in doing the rebozo technique.

Keywords: Apgar Score, Hypnobirthing, Second Stage Labor Duration

INTRODUCTION
Health development is an investment that aims to improve the quality of human resources. Maternal Mortality Rate (MMR) and Infant Mortality Rate (AKB) are indicators of health degrees as well as indicators of successful health development (Alvaro et al., 2021). Maternal mortality in this indicator represents all deaths during the period of pregnancy, childbirth, and puerperium caused by pregnancy, childbirth, and puerperium or their management but not from other causes such as accidents or incidental. The Maternal Mortality Rate (MMR) is all deaths within that scope in every 100,000 live births (Ministry of Health, 2021).

Indonesia’s maternal mortality rate (MMR) is still high, in 2019 it was recorded at 305 per 100,000 live births. In fact, Indonesia’s MMR target in 2015 is 102 per 100,000 live births (Susiana, 2019). One of the causes of maternal death is the old partus. Partus lama is the cause of 31% of maternal deaths (Qonitun & Fadilah, 2019). One of the causes of maternal death is labor long. Long labor is the cause of 31% of maternal deaths (Qonitun & Fadilah, 2019). The labor process includes 4 stages. Stage 1 is the opening time of the cervix 1 – 10 cm. Stage 2 is the time the baby born. Stage 2 delivery begins after complete opening (10 cm) until the baby is born. In childbirth during II, in addition to courage and stamina, confidence in the skills of midwives that help the birth process is also needed (Syswianti et al., 2020).

Infant Mortality Rate (IMR) is the number of infant deaths in the first 28 days of life per 1000 live births (Simanungkalit & Pumawati, 2020). Data reported to the Directorate of Family Health, in 2020, found 20,266 neonatal deaths that occurred at the age of 0-28 days. Asphyxia is the cause of 27.4% of infant deaths (Ministry of Health, 2021). Asphyxia can be detected by measuring Apgar scores. Apgar score is the most commonly used system for neonatal assessment. It is fast and provides clear guidance on the status of the fetus (Vaughan et al., 2010). Scores are reported at 1 minute and 5 minutes after birth for all babies, and at intervals of 5 minutes thereafter to 20 minutes for babies with scores less than 7 (Watterberg et al., 2015). Apgar assessment is very important because it is to minimize asphyxia in infants which is a continuation of the low Apgar score. At the time of delivery, the baby’s heart rate must also be monitored with a doppler or linek to find out the well-being of the fetus in the womb (Putri, 2019).

Apgar's score of 0 at 10 minutes is a strong predictor of mortality and morbidity in premature babies and full-term infants. We advise that, in babies with an Apgar score of 0 after 10 minutes of resuscitation, if the heart rate remains undetected, it may make sense to stop the relief ventilation; However, the decision to continue or continue resuscitation efforts must be individual. The variables under consideration may include whether resuscitation is considered optimal; availability of advanced neonatal treatments, such as therapeutic hypothermia; certain circumstances before delivery (for example, the known time of the result); and wishes expressed by the family (Weiner et al., 2016).

One of the efforts that can be made to overcome the occurrence of long childbirth during II and the low score of Apgar is to provide hypnobirthing to the parturient. Hypnobirthing is a natural effort to build positive intentions into the subconscious soul/mind during pregnancy and preparation for childbirth (Legiati & Widiawati, 2017). Hypnobirthing is believed to be beneficial because it makes mothers give birth more relaxed, calm, so that they can give birth comfortably and reduce pain during childbirth (Sariati et al., 2016).

Anxiety and fear of mothers during childbirth can have an impact on the onset of severe pain and can also result in decreased uterine contractions, so that childbirth takes longer (Setiani et al., 2020). A study on hypnobirthing shows that hypnobirthing has an effect on increasing the frequency of uterine contractions, the duration of contractions, the opening of the cervix, and the decrease in the head of the fetus, so that it will speed up the delivery process (Muhidayati et al., 2018). The effect of hypnobirthing on the duration of delivery during II is proven by the research of Syswianti et al. (2020) and (Rini, 2010).

In addition, hypnobirthing also affects the value of Apgar (Rahmawati, 2018). Hypnobirthing is believed to be able to help the supply of oxygen to the baby during the delivery process so that the baby born has a better Apgar score (Marliana et al., 2016). Mothers giving birth with the application of
Rebozo is a technique to give space to the baby in a way that is fun for the mother. Rebozo can be used during childbirth to help the muscles and muscle fibers in the uterine ligament relax so that it can reduce pain when there are contractions (Yuriati & Khoiriyah, 2021). The Rebozo technique helps maternal mothers to have a wider pelvic space so that delivery can be done faster because the baby becomes easier to go down the pelvis (Munafiah et al., 2020).

The results of the study of Iversen et al. (2017) show that the rebozo technique provides an experience of non-pharmacological non-invasive methods used during childbirth. Women's experience of the rebozo technique performed during childbirth is physical and psychological. The women experienced that the rebozo technique improves pain management and is potentially conducive to the labor process as a harmless nonpharmacological method. The rebozo technique can be seen as a tool of cooperation between a woman, a midwife and the female partner.

When looking at previous studies, hypnobirthing and rebozo were applied separately to test their effect on labor duration and Apgar scores. This study tried to expand the scope of research (expand knowledge) and propose novelty by applying the application of hypnobirthing accompanied by rebozo to reduce the duration of delivery during II and Apgar scores. The application of hypnobirthing coupled with rebozo is expected to further strengthen the treatment in an effort to prevent prolonged delivery II and low baby Apgar scores. The study was conducted at BPM Midwife Dina Garut, who has conducted hypnobirthing training for pregnant women. In addition, midwives in the venue have also received training to perform rebozo techniques.

The goal to be achieved in this study is to determine the effect of hypnobirthing and rebozo administration on the duration of delivery during II and Apgar scores.

**METHODS**

Research is a quasi experiment, or also called controlled trial without randomization in the determination of the sample (Krishnan, 2019). The experimental design used was posttest only with control group design, where one group obtained treatment (X), compared to another group that did not get treatment (X) so that the effect of treatment (X) was obtained (Sinambela & Sinambela, 2022). In this study, the experimental group was given hypnobirthing and rebozo and the control group was only given hypnobirthing. The population in this study was all mothers giving birth at BPM Midwife Dina Garut in the period of November – December 2021.

The sample of 20 respondents was determined by purposive sampling, namely the determination of samples with certain considerations (Harsojuwono & Amata, 2020). The samples in this study were determined by the criteria of normal childbirth, with a normal baby's birth weight. The exclusion criteria are mothers with labor difficulties.

Research data is primary data, that is, data that has not been published and is first-hand information that is not changed by a person.
(Taherdoost, 2021). The measurement of the duration of labor during II uses a stopwatch as a measuring instrument, and the Apgar score is used as an Apgar test. The data analysis technique is carried out with an independent sample t test if the research data is normal data distribution, and the Mann Whitney test if the research data is not a normal data distribution. The data normality test was carried out with one sample Kolmogorov-Smirnov Test.

RESULT

Description of Research Data

In this study, there were two groups of samples, namely respondents who were given hypnobirthing and rebozo as an experimental group and respondents who were only given hypnobirthing as a control group. The characteristics of the respondents can be described in the following table:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experimen Group</th>
<th>Control Group</th>
<th>( \chi^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 – 25 years</td>
<td>4</td>
<td>3</td>
<td>0.610</td>
<td>0.737</td>
</tr>
<tr>
<td>&gt; 25 – 30 years</td>
<td>14</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 30 – 35 years</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby's birth weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2500 – 3000 g</td>
<td>7</td>
<td>5</td>
<td>0.556</td>
<td>0.757</td>
</tr>
<tr>
<td>&gt; 3000 – 3500 g</td>
<td>8</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 3500 – 4000 g</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that based on age, the respondents of the experimental group were at most 20 – 25 years old, namely 14 respondents (70.0%), and at least >30 – 35 years old, namely 2 respondents (10.0%). The respondents of the control group, at most aged 20 – 35 years, namely 16 respondents (80.0%), and the least aged >30 – 35 years, namely 1 respondent (5.0%). Based on the value of 2 of 0.610 and p of 0.737 (p>0.05), there is no difference in age characteristics in the experimental group and the control group.

Based on the birth weight of babies, respondents of the experimental group had the most babies with a birth weight of >3000 – 3500 grams, namely 8 respondents (40.0%), and the least had a baby with a birth weight of >3500 – 4000 grams, namely 5 respondents (25.0%). Control group respondents, most had babies with a birth weight of >3000 – 3500 grams, namely 10 respondents (50.0%), and those with babies with a birth weight of 2500 – 3000 grams and >3500 – 4000 grams, 5 respondents each (5.0%). Based on a value of 2 of 0.556 and p of 0.757 (p>0.05), there was no difference in the characteristics of the baby's birth weight in the experimental group and the control group.

The data in this study can be described in the following table:

Table 2 shows that the duration of delivery during time II in the experimental group was 10 – 25 minutes with an average of 16.95 minutes and a standard deviation of 3.76 minutes. In the control group, the duration of delivery during II was 15-40 minutes with an average of 27.50 minutes and a standard deviation of 6.79 minutes. Apgar's score range in the experimental group was 6.8 – 8.9 with an average of 7.43 and a standard deviation of 0.63. In the control group, the Apgar score range was 5.7 – 8.9 with an average of 7.31 and a standard deviation of 0.93.
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<table>
<thead>
<tr>
<th>Group</th>
<th>Variabel</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimen Group</td>
<td>the duration of labor during II</td>
<td>10,00</td>
<td>25,00</td>
<td>16,95</td>
<td>3,76</td>
</tr>
<tr>
<td></td>
<td>Apgar Score</td>
<td>6,80</td>
<td>8,90</td>
<td>7,43</td>
<td>0,63</td>
</tr>
<tr>
<td>Control Group</td>
<td>Minimum</td>
<td>15,00</td>
<td>40,00</td>
<td>27,50</td>
<td>6,79</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>25,00</td>
<td>8,90</td>
<td>7,31</td>
<td>0,93</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>16,95</td>
<td>7,43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>3,76</td>
<td>0,63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data Normality Test**
The results of testing the normality of the data can be described in the table as follows:

<table>
<thead>
<tr>
<th>Variabel</th>
<th>KS-Z</th>
<th>p</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration Of the labor During II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Experimen Group)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0,248</td>
<td>0,002</td>
<td>Tidak normal</td>
</tr>
<tr>
<td>Duration Of the labor during II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Control Group)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0,194</td>
<td>0,048</td>
<td>Tidak normal</td>
</tr>
<tr>
<td>Apgar Score (Experimen Group)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0,298</td>
<td>0,000</td>
<td>Tidak normal</td>
</tr>
<tr>
<td>Apgar Score (Control Group)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0,236</td>
<td>0,005</td>
<td>Tidak normal</td>
</tr>
</tbody>
</table>

Table 3 shows that all research data have an abnormal data distribution, indicated from the p-value < 0.05.

**Data Analysis and Hypothesis Testing**
Based on the distribution for all research data that is not normally distributed, the data analysis in this study was used by the Mann-Whitney test. The results can be summarized in the table as follows:

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Mann-Whitney U</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>the duration of labor during II</td>
<td>40,000</td>
<td>-4,420</td>
<td>0,000</td>
</tr>
<tr>
<td>Apgar Score</td>
<td>190,000</td>
<td>-0,284</td>
<td>0,776</td>
</tr>
</tbody>
</table>

Based on the table above, hypothesis testing is carried out as follows:

**First Hypothesis Testing**
Table 3 shows that in the test of the duration of labor during II, a Z value of -4.420 and p of 0.000 was obtained. Based on the p-value < 0.05, it was concluded that hypnobirthing and rebozo administration affects the duration of delivery during II. The group given hypnobirthing and rebozo had a faster duration of delivery during II than the group that was only given hypnobirthing. The results of this study support the results of the research of Syswianti et al. (2020) and Rini (2010) which show that hypnobirthing affects the faster the duration of delivery during II.

Giving hypnobirthing and rebozo at the same time, will help speed up the delivery process during II. Hypnobirthing can be used to face and undergo pregnancy and preparation for childbirth in a natural, calm, and comfortable way as well as the mental health of the fetus (Marliana et al., 2016). The Rebozo technique helps maternity mothers so that the pelvic space becomes wider so that childbirth can be done faster because the baby becomes easier to go down the pelvis (Munafiah et al., 2020). Convenience in carrying out childbirth will help the successful application of the rebozo technique so that the labor process also becomes faster.

**Second Hypothesis Testing**
Table 3 shows that in the Apgar score test, a Z value of -0.284 and p of 0.776 were obtained. Based on the p-value > 0.05, it was concluded that hypnobirthing and rebozo administration had no effect on Apgar’s score. The results of this study
support the research of Putrianti & Karuniawati (2017) showing that hypnobirthing has no effect on Apgar's score. Although the results were not significant, but when looking at the results of the study, it was seen that maternity mothers who got hypnobirthing and rebozo had a faster duration of delivery during II than maternity mothers who only got hypnobirthing.

One of the factors that made the results of the study insignificant was maternity mothers who did not fully believe in hypnobirthing, so they were unable to reduce the level of anxiety and tension during childbirth. Such anxiety and tension will affect the technique of success of the rebozo technique. The ineffectiveness of hypnobirthing and rebozo makes childbirth during II longer.

**CONCLUSION**

The results showed that the administration of hypnobirthing and rebozo had an effect on reducing the duration of delivery during II. Maternity mothers who were given hypnobirthing and rebozo had a lower duration of delivery during II compared to those who only did hypnobirthing. Hypnobirthing and rebozo have no effect on Apgar's score.

**SUGESTION**

Based on the results of the research above, midwives should make a learning video about hypnobirthing and rebozo techniques, so that it can be a lesson for pregnant women who visit to learn to apply hypnobirthing techniques, and for midwives to help maternity mothers in performing rebozo techniques. Pregnant women should be able to learn and practice hypnobirthing during pregnancy, so that they can apply it during the delivery process.

**DAFTAR PUSTAKA**


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