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Research Article

The Effect of Nipple Stimulation on The Duration of The Second Stage of Labor at The Motolohu Health Center UPTD, Pohuwato Regency

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Abstract: The labor process in pregnant women can take place with varying times, and several factors can affect the duration of labor, one of which is nipple stimulation. Nipple stimulation is known to stimulate the production of oxytocin which helps accelerate uterine contractions and shorten the duration of labor, especially in the second stage. Therefore, this study aims to determine the effect of nipple stimulation on the duration of second stage labor in women giving birth at the Motolohu Health Center UPTD, Pohuwato Regency. This study aims to determine whether nipple stimulation can affect the duration of second stage labor in women giving birth at the Motolohu Health Center UPTD, Pohuwato Regency. This type of research is quantitative research with an experimental design using a pre-test and post-test approach. The study was conducted on 16 respondents who met the inclusion and exclusion criteria. Nipple stimulation was carried out during the active phase of labor to monitor changes in the duration of second stage labor. Data were analyzed using the Wilcoxon test with a significance level of 0.05. The results showed that after nipple stimulation, there was a significant change in the duration of the second stage of labor in mothers in labor. The p value obtained from the Wilcoxon test was 0.000, which indicated that nipple stimulation had a significant effect on reducing the duration of the second stage of labor. Nipple stimulation can shorten the duration of the second stage of labor in mothers in labor at the Motolohu Health Center UPTD, Pohuwato Regency. This shows that nipple stimulation can be used as an alternative to accelerate the labor process safely and effectively. It is hoped that nipple stimulation can be used as one of the non-pharmacological interventions that are routinely carried out in health facilities as an effort to accelerate the labor process. Further research with larger samples and long-term research is also needed to confirm these results

Keywords: duration of labor, mothers in labor, Nipple stimulation, second stage

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1. Introduction

The labor process is one of the most important events in a woman's life. Labor is divided into three stages, namely stage I (opening), stage II (birth of the baby), and stage III (birth of the placenta). Stage II is a critical phase in the labor process, where the mother will try to push the baby out. The length of stage II labor can be influenced by various factors, such as the mother's physical condition, the strength of uterine contractions, and medical or

non-medical interventions given during the labor process. Therefore, it is important to find interventions that can speed up the labor process safely.

One intervention that can be used to speed up labor is nipple stimulation. Stimulation of the nipples can stimulate the production of oxytocin, which plays an important role in increasing the strength of uterine contractions. Stronger and more regular contractions can speed up the opening of the cervix and shorten the duration of stage II. This therapy is a non-pharmacological method that can be applied easily and cheaply, without the need for tools or drugs.

Based on previous studies, nipple stimulation has been shown to be effective in speeding up the labor process, especially stage II. Several studies have shown that this stimulation can shorten the duration of the second stage of labor by 20-30 minutes in some pregnant women who experience longer labor [3]. Therefore, it is important to further explore the effect of nipple stimulation on the duration of labor, especially in areas with limited access to drugs or medical devices.

UPTD Motolohu Health Center, Pohuwato Regency, is one of the health facilities that often handles labor. However, not all pregnant women in this area have access to complex medical interventions, so the application of non-pharmacological therapy such as nipple stimulation can be a more practical and affordable alternative. By accelerating the labor process, this therapy can also reduce the risk of complications that may occur due to too long labor.

In this study, the main objective was to determine the effect of nipple stimulation on the duration of the second stage of labor at UPTD Motolohu Health Center. This study was conducted involving 16 pregnant women who met the inclusion criteria. In this study, pregnant women will be given nipple stimulation during the active phase of labor to observe its effect on the duration of the second stage.

This study is also expected to contribute to the development of midwifery practice, especially in terms of the use of non-pharmacological therapy in the labor process. With scientific evidence showing the effectiveness of this therapy, it is hoped that more health workers will consider the use of nipple stimulation as part of safer and more effective labor management. The results of this study are expected to provide an overview of the practical benefits of providing nipple stimulation in accelerating the second stage of labor, as well as providing useful information for health service policies in areas with limited access to medical devices and drugs.

2. Research Method

This type of research is quantitative research with an experimental design using a pre-test and post-test approach. The study was conducted on 16 respondents who met the inclusion and exclusion criteria. Nipple stimulation was carried out during the active phase of labor to monitor changes in the duration of second stage labor. Data were analyzed using the Wilcoxon test with a significance level of 0.05.

3. Results and Discussion

Results

In table 1, the age of the mother, most of the 13 respondents (81.2%) were >21 years old and a small number of 3 respondents (18.8%) were <21 years old.

Table 1 Mother's Age

Information	Frequency	Percent
<21 year	3	18.8
>21 year	13	81.2
Total	16	100.0

In table 2, it was found that the majority of 12 respondents (75%) were housewives and a small proportion of 4 respondents (25%) were self-employed.

Table 2 Mother's Occupation

Information	Frequency	Percent
housewives	12	75.0
self-employed	4	25.0
Total	16	100.0

Based on table 3 above, it was found that the majority of 9 respondents (56.2%) had a high school education and a small proportion of 7 respondents (43.8%) had a junior high school education.

Table 3 Mother's Education

Information	Frequency	Percent
SMP	7	43.8
SMA	9	56.2
Total	16	100.0

Based on table 4 above, from the Wilcoxon test above, 0.000 <0.05 was obtained, which means that there is an effect of nipple stimulation on the duration of the second stage of labor at the Motolohu Health Center UPTD, Pohuwato Regency. Initial data obtained 16 respondents (100%) with a normal second stage process, after the intervention, 15 respondents (93.8%) experienced a fast second stage process and II respondents (6.2%) experienced normal second process opening.

Table 4 Before and After Treatment

Before		
Information	Frequency	Percent
experienced normal kala II proces	16	100.0
After		
Information	Frequency	Percent
experienced fast kala II proces	15	93.8
experienced normal kala II proces	1	6.2
Total	16	100.0
Uji Wilcoxon		0.000

Discussion

Based on the results of the Wilcoxon test obtained with a p value of 0.000 (<0.05), it can be concluded that nipple stimulation has a significant effect on the duration of the second stage of labor in mothers giving birth at the Motolohu Health Center UPTD, Pohuwato Regency. A p value of less than 0.05 indicates a significant difference before and after the intervention, indicating that nipple stimulation has an impact on accelerating the labor process in pregnant women.

In the early stages, 16 respondents (100%) experienced a normal second stage of labor, but after nipple stimulation, 15 respondents (93.8%) experienced a faster second stage of labor. This shows that most pregnant women who were given the intervention experienced an acceleration in the birth process, where contractions became stronger and cervical dilation occurred faster. This decrease in the duration of the second stage can reduce the risk of complications in the mother and baby, which are often associated with the length of the labor process.

Nipple stimulation has long been known as a non-pharmacological technique that can stimulate the production of oxytocin, a hormone responsible for uterine contractions. This naturally released oxytocin increases the frequency and strength of contractions, which serves to accelerate the opening of the cervix and push the baby out [1]. Several previous studies have shown that this therapy can significantly shorten the time of the second stage of labor without adverse side effects, which is in accordance with the results of this study.

In addition, providing nipple stimulation can also reduce the need for further medical intervention, such as the use of drugs or other procedures to accelerate labor. This is very important, especially in areas with limited health facilities such as the Motolohu Health Center UPTD, where access to medical equipment or drugs may be limited. Thus, this therapy offers an easy and effective alternative to accelerate the labor process.

However, although most respondents experienced acceleration of the second stage of labor, there were two respondents (6.2%) who experienced a normal second stage of labor. This shows that although nipple stimulation has a significant impact, there are other factors that affect the duration of labor, such as the mother's physical condition, gestational age, and psychological factors that can affect the body's response to stimulation .

One factor that can affect these results is the mother's physical readiness. Mothers who have previous labor experience or are in better physical condition may respond more easily to nipple stimulation by accelerating the labor process. Conversely, younger mothers or those with certain medical conditions may not experience the same response to the stimulation ·

Nipple stimulation is also known to have psychological benefits for mothers in labor. This stimulation process can help mothers feel more relaxed and focused, which can affect the intensity and duration of contractions. When the mother feels more comfortable and calm, her body can work more efficiently, which in turn accelerates the labor process · This can also be seen from the majority of respondents who experienced accelerated labor after the intervention.

The results of this study also show that the use of nipple stimulation as a non-pharmacological technique has the potential to reduce the use of drugs that are commonly given to accelerate labor, such as synthetic prostaglandins or oxytocin. The use of these drugs is indeed effective, but often has side effects that need to be considered, such as increased blood pressure or hypoxia in the fetus. By using nipple stimulation, pregnant women can avoid these risks ·

In addition, this study also shows that nipple stimulation can be done easily and cheaply, making it a very suitable choice in areas with limited medical resources. This therapy only requires basic knowledge and skills from health workers to be carried out safely and effectively. Therefore, the application of this technique in health centers or hospitals with limited facilities can be a very useful step to speed up the labor process in these areas.

However, although the results of this study show a positive impact of nipple stimulation, further research is still needed with a larger sample and in various settings to ensure the consistency of these findings. Further research is also expected to identify other factors that may influence the effectiveness of nipple stimulation in accelerating laborn ·

The success of nipple stimulation therapy in accelerating second stage labor does not only depend on the technique used, but also on a holistic approach to labor management. Medical personnel who are well-trained and have a good understanding of the labor process and the effects of nipple stimulation will improve the results of this therapy. Therefore, training and education for medical personnel regarding this therapy need to be continuously improved.

Based on the results of this study, it is recommended that the Motolohu Health Center and other health facilities in Pohuwato Regency can consider the use of nipple stimulation therapy as one of the routine interventions in second stage labor management. By utilizing this therapy, it is hoped that it can accelerate the labor process, reduce the risk of complications, and increase maternal satisfaction with their labor experience ·

4. Conclusion

Based on the results of research conducted at the Motolohu Health Center UPTD, Pohuwato Regency, it can be concluded that nipple stimulation has a significant effect on the duration of second stage labor. The Wilcoxon test results showed a p value of 0.000 (<0.05), which indicates a significant difference between the duration of labor before and after nipple stimulation intervention. Most mothers experienced an acceleration of the second stage of

labor after being given nipple stimulation, where 93.8% of respondents experienced a faster labor process.

Nipple stimulation therapy can accelerate the birth process by stimulating the production of oxytocin which plays a role in increasing uterine contractions, thereby shortening the duration of labor and reducing the risk of complications that may arise due to labor that is too long. In addition, this therapy also provides benefits in the form of non-pharmacological alternatives that can be done easily, cheaply, and safely, especially in areas with limited access to medicines and medical devices.

However, there was a small proportion of mothers (6.2%) who experienced normal second stage labor, indicating that other factors, such as the mother's physical condition, gestational age, and psychological, can also affect the duration of labor. Therefore, nipple stimulation therapy should be considered as an additional intervention in labor management, while still considering the condition of each pregnant woman.

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