

The Effect Of Peanut Ball Use On The Duration Of Active Phase I Labor In Women In Labor At Majenang General Hospital In 2024

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Abstract

Prolonged labor is one of the complications in childbirth that can lead to increased mortality and morbidity in mothers and fetuses. The incidence of prolonged labor remains high at Majenang General Hospital. One non-pharmacological method that can be used is the use of a peanut ball. Objective: To determine the effect of using a peanut ball on the duration of labor. Method: This study used a quasi-experimental design with a post-test only control group design. The sampling technique used was total sampling, dividing the participants into two groups: a control group of 16 respondents and an intervention group of 16 respondents. Data analysis was performed using an independent samples t-test. Results: The results of this study showed a significant difference in the average duration of the first stage of active labor between the two groups ($p < 0.05$).

National Accreditation:

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INTRODUCTION

According to data from the World Health Organization (WHO), the global maternal mortality rate during pregnancy and births in 2020, namely 287,000. The number of maternal deaths compiled from family health program records at the Ministry of Health in 2020 shows 4,627 deaths in Indonesia. This number increased by 4,221 deaths compared to 2019. According to data from the Indonesian Ministry of Health, MMR In Indonesia, maternal mortality rates related to pregnancy, childbirth, and the postpartum period remained high as of 2022, at 305 per 100,000 live births, exceeding the Sustainable Development Goals (SDGs) target of less than 70 per 100,000 live births. The MMR in Central Java during the 2019-2021 period also saw a significant increase, with the MMR in 2019 at 76.9 per 100,000 live births, 98.6 per 100,000 live births in 2020, and 199 per 100,000 live births in 2021. Based on these data, it can be concluded that the Maternal Mortality Rate (MMR) in Central Java Province has increased significantly. Comprehensive Obstetric and Neonatal Emergency Care is an effort to provide and deliver integrated services for mothers and newborn babies. Majenang General Hospital is an obstetric care provider that is part of the referral system for maternal and neonatal emergency care and plays a role in reducing maternal and neonatal mortality rates. The research question in this study is "How does the use of peanut balls affect the duration of active phase I labor in women giving birth at Majenang General Hospital in 2024?" The general objective of this study is to determine the effect of peanut ball use on the duration of the active phase of the first stage of labor in laboring mothers. To enhance knowledge and understanding in midwifery practice regarding the effect of peanut ball use on the duration of the active phase of the first stage of labor in laboring mothers.

METHOD

This study is a quasi-experimental study with a non-equivalent control group and posttest only control group design. In this design, the researchers used two groups with different treatments, namely a control group that did not use peanuts The ball and treatment groups are groups that use peanut balls. Each group will be observed for the duration of their labor after going through the delivery process, which can be seen on the partograph observation sheet. This study was conducted at Majenang Regional General Hospital in Cilacap Regency over a period of two months, from October to November 2024. The population consists of all elements in the study, including objects and subjects with specific characteristics and traits.³² The population in this study is all women giving birth physiologically at Majenang General Hospital in October-November 2024. During October-November, the number of physiological deliveries at Majenang General Hospital was 32. . The total sample size for this study was 32. The sampling technique used was total sampling, where the entire population was used as the sample. An independent variable is a type of variable that causes changes in other variables.³³ The independent variable in this study was the use of peanut balls. The dependent variable was the type of variable affected by changes in the independent variable. In this study, the instruments used were peanut balls, informed consent forms, and partograph observation sheets, which were used to observe the progress of labor so that the duration of labor for the respondents could be determined. The data collected in this study are primary data or data obtained from respondents, namely mothers in the active phase of the first stage of labor at Majenang General Hospital, as the data source using the partograph observation sheet. The data analysis used is univariate and bivariate. The data obtained are quantitative, so statistical techniques are used in their processing. This study has obtained ethical approval in the form of Ethical Approval No. 1192/EA/F.XXIII.38/2024 from the Health Research Ethics Committee (KEPK) of the Semarang Health Polytechnic.

RESULTS AND DISCUSSION

Univariate analysis was performed to obtain an overview of the frequency distribution and variation of each variable studied. The variables studied were the use of peanut balls and the duration of active phase I labor in mothers giving birth. In addition, a description of the respondent profile consisting of age, parity, education, and occupation will also be presented. The results of the univariate analysis are presented in the form of frequency tables and narratives.

Table 1. Respondent Profile

Profile	Frequency	Percentage
Age	32	100%
<20 Year	6	18,8 %
20-35 Year	19	59,4 %
>35 Year	7	21,9 %
Parity	32	100 %
Primigravida	16	50,0 %
Multigravida	12	37,5 %
Grandemultigravida	4	12,5 %
Education	32	100 %
Elementary School	8	25,0 %
Junior High School	7	21,9 %
High School	16	50,0 %
Higher Education	1	3,1 %
Work	32	100 %
Working	8	25,0 %
Not Working	24	75,0 %

It can be seen that most respondents were aged between 20 and 35 years (59.4%), were primigravida (50%), had a high school education (50%), and were unemployed (75%).

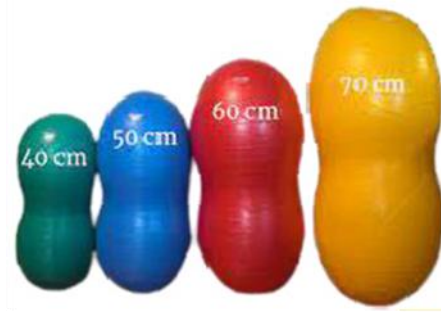


Figure 1. Variations in Peanut Ball Sizes

Based on research conducted by Tussey and Botsois (2015), there are three main benefits found in mothers who use peanut balls during labor, including:

- 1) Speeds up labor Mothers who use peanut balls during labor experience an average of A 90-minute labor without intervention did not cause any harm to either the mother or the fetus.
- 2) Shortening the pushing stage: Mothers who used a peanut ball during labor were found to have a 23-minute shorter duration for the second stage of labor compared to mothers who did not use a peanut ball during their labor.
- 3) Reducing cesarean section surgeries. Medical interventions such as cesarean section surgeries in the group of mothers who received the peanut ball intervention had a 13% lower risk compared to the group of mothers who did not use the peanut ball.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Based on the results of a study on the effect of using peanut balls on the duration of the first stage of labor at Majenang General Hospital in 2024, the following conclusions can be drawn:

- a) The average duration of the first stage of labor in the control group was 314.06 minutes.
- b) The average duration of the first stage of labor in the intervention group was 213.75 minutes.
- c) There was a significant difference in the average duration between the control group and the intervention group. This indicates that the use of peanut balls has a significant effect on reducing the duration of the first stage of labor in laboring mothers.

RECOMMENDATIONS

Based on the above conclusions, the author has compiled several recommendations for:

- a) Pregnant Women
Women can use peanut balls as a means to experience a comfortable and enjoyable delivery process by shortening the first stage of labor.
- b) For Practice Settings Practice facilities can provide peanut balls in delivery rooms and give brief training to all midwives on the correct and effective use of peanut balls.
- c) For Future Researchers
Future researchers are encouraged to conduct research on the use of peanut balls in advancing labor and facilitating the second stage of labor using new research methods.

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