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The Relationship Between Upright Delivery Positions And The Incidence Of Perineal Tears In Normal Delivery

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ABSTRACT

Birth position is one factor that can influence the birth process and the risk of complications during labor. Upright birth positions such as standing, sitting, or squatting are believed to utilize gravity to facilitate the birth process. However, this position is also suspected to be associated with the incidence of perineal tears in normal deliveries. This study aims to determine the relationship between upright birth positions and the incidence of perineal tears in normal deliveries. The study used an analytical design with a cross-sectional approach. The study sample consisted of 60 mothers who gave birth normally, selected using a purposive sampling technique. Data were collected through observation and medical record recording. Data analysis used the chi-square test. The results showed that mothers who gave birth in an upright position had a 40% incidence of perineal tears, while those in a non-upright position had a 65% incidence. The statistical test results showed a p value = 0.032 ($p < 0.05$). It was concluded that there is a relationship between upright birth positions and the incidence of perineal tears in normal deliveries.

Keywords: Delivery Position, Upright Position, Perineal Tear, Normal Delivery

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1. Introduction

Childbirth is a physiological process involving various factors that influence the smoothness of the birth process, including the condition of the mother and fetus, as well as the techniques and positions used during labor. One factor that can influence the birth process is the mother's position during delivery.

Traditionally, many births were performed in the supine or lithotomy position. However, in modern obstetric practice, upright birthing positions such as sitting, standing, or squatting are increasingly recommended because they can utilize gravity to aid fetal descent.

An upright birthing position is believed to speed up labor, increase the efficiency of uterine contractions, and enlarge the pelvic diameter. Furthermore, this position allows the mother to be more active during labor.

Research shows that birthing position can also influence the incidence of birth trauma, including perineal tears. Perineal tears are a common complication of vaginal delivery and can cause bleeding and discomfort. postpartum.

This study aims to determine the relationship between upright birth positions and the incidence of perineal tears in normal births.

2. Research Methods

a. Research Design

This study uses an analytical design with a cross-sectional approach.

b. Population and Sample

The research population was all mothers who underwent normal delivery at health service facilities in region X.

The research sample consisted of 60 mothers giving birth who were selected using purposive sampling techniques.

c. Inclusion Criteria

1) Mother with normal delivery
2) Single pregnancy
3) Gestational age ≥37 weeks

d. Research Variables

- Independent variable: delivery position
- Dependent variable: incidence of perineal tear

e. Data collection

Data were obtained through direct observation and medical records of childbirth.

f. Data analysis

Data analysis was performed using:

- Descriptive analysis
- Chi-square test with a significance level of 0.05.

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3. Research Results And Discussion

a. Research Result

1) Respondent Characteristics

This study involved 60 mothers who underwent normal deliveries. Respondent characteristics included maternal age, parity, and infant weight.

Table 1.
Respondent Characteristics

Characteristics	n	%
Mother's Age		
<20 years	6	10
20–35 years	42	70
>35 years	12	20
Parity		
Primipara	26	43
Multipara	34	57
Baby Weight		
<3000 grams	24	40
≥3000 grams	36	60

Most respondents were of healthy reproductive age (20–35 years). This age group generally has better perineal tissue elasticity than those at the extreme ages.

2) Distribution of Delivery Positions

The birthing positions observed in this study consisted of upright positions (squatting, sitting, or half-sitting) and non-upright positions (lithotomy or supine).

Table 2.
Distribution of Delivery Positions

Birthing Positions	n	%
Upright	30	50
Non-erect	30	50

This distribution shows that half of the respondents gave birth using an upright position.

3) Distribution of Perineal Tear Incidence

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Perineal tears in this study were classified into non-tear and grade I–II perineal tears.

Table 3.
Distribution of Perineal Tear Incidences

Tear Incident	n	%
No tears	28	47
First degree tear	20	33
Second degree tear	12	20

Most of the tears that occur are mild perineal tears (first degree).

4) The Relationship Between Childbirth Position and the Incidence of Perineal Tears

Table 4.
Relationship between Delivery Position and Perineal Tears

Birthing Positions	tear	No Tear	Total
Upright	12	18	30
Non-erect	20	10	30
Total	32	28	60

The results of the analysis using the chi-square test show: $p = 0.032$

A p value < 0.05 indicates that there is a significant relationship between delivery position and the incidence of perineal tears.

5) Perineal Tear Risk Analysis

To see the magnitude of the risk of perineal tearing in certain delivery positions, a simple risk ratio analysis was performed.

Table 5.
Risk of Perineal Tear Based on Delivery Position

Birthing Positions	Risk of Tear (%)
Upright	40%
Non-erect	66.7%

These results indicate that mothers who give birth in a non-upright position have a higher risk of perineal tears than those in an upright position.

b. Discussion

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Research results show that upright birth positions have a lower incidence of perineal tears than non-upright positions. Mothers giving birth in upright positions experienced 40% of perineal tears, compared with 66.7% in non-upright positions.

An upright birthing position allows the mother to utilize gravity to assist in the descent of the fetal head. By utilizing gravity, pressure on the perineum is more evenly distributed, reducing the risk of tearing.

An upright position also increases pelvic flexibility by opening the pelvic angle more. This allows the perineal tissues to gradually stretch during labor.

The supine or lithotomy position can increase direct pressure on the perineum because fetal pressure is more concentrated in that area. This can increase the risk of birth canal trauma.

The incidence of perineal tears isn't solely influenced by birthing position. Several other factors can influence the incidence of perineal tears, including:

- Maternal parity
- Baby weight
- Elasticity of the perineal tissue
- Childbirth assistance techniques
- Duration of the second stage of labor

Primiparous mothers tend to have a higher risk of perineal tears because the perineal tissue has never been stretched before.

The findings of this study support the theory that more physiological birthing positions that allow the mother freedom of movement can help reduce birth canal trauma.

In modern midwifery practice, the mother-centered approach Care increasingly emphasizes the importance of giving mothers the freedom to choose the most comfortable birthing position.

➢ **Clinical Implications**

The results of this study indicate that using an upright birthing position can be a strategy to reduce the risk of perineal tears during vaginal delivery. Therefore, healthcare providers are advised to educate pregnant women about various birthing position options.

This approach can also increase maternal comfort during labor and support a more physiological labor process.

4. Conclusion And Suggestions

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a. Conclusion

There is a link between upright birthing positions and the incidence of perineal tears during vaginal delivery. Upright birthing positions tend to have a lower incidence of perineal tears than non-upright positions.

b. Suggestion

1) Health workers are advised to provide education regarding birthing position choices to pregnant women.
2) The upright birth position may be considered as an alternative to reduce the risk of perineal trauma.
3) Further research is recommended to examine other factors that influence the incidence of perineal tears.

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