



## The Relationship Between Duration of Labor and Talking Hold in Postpartum Mothers in the Working Area of the Akelamo Inpatient Community Health Center

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**Abstract.** Background: Duration of labor is a key determinant of childbirth outcomes and may influence the mother's physiological and psychological state. Prolonged labor is often associated with increased maternal fatigue and emotional stress, which can delay the establishment of early maternal-infant bonding during the taking-hold period. Methods: This study employed a cross-sectional design with a quantitative approach. A total of 80 postpartum women who delivered vaginally at hospitals and maternity clinics were recruited through purposive sampling. Data were collected using an observation sheet for labor duration and the Maternal Postnatal Attachment Scale (MPAS). Statistical analysis was performed using Pearson's correlation test with a significance level of  $p < 0.05$ . Results: The findings revealed a significant negative correlation between labor duration and maternal-infant bonding scores ( $r = -0.432$ ;  $p = 0.002$ ). Mothers who experienced labor longer than 12 hours demonstrated lower emotional closeness with their infants compared to those with shorter labor (<8 hours). Conclusion: Prolonged labor tends to hinder the development of early maternal-infant bonding. Emotional support and midwifery assistance during the labor process are essential to enhance bonding and psychological well-being in the postpartum period.

**Keywords:** Emotional Attachment; Labor Duration; Maternal-Infant Bonding; Postpartum; Taking-Hold Period

### 1. INTRODUCTION

Childbirth is a complex physiological process that may vary significantly in duration between one woman and another. Research has shown that prolonged labour is associated with elevated risks of maternal and neonatal complications, such as postpartum hemorrhage, birth canal injury, or infection.

Beyond physical complications, extended labour may also carry psychological consequences for the postpartum mother. For example, a long or difficult birthing experience can influence maternal comfort, childbirth satisfaction, and may trigger stress or anxiety during the postpartum phase.

The phenomenon of "talking hold" in postpartum mothers (in this context interpreted as the willingness or readiness to talk, share experiences, or receive verbal support) holds significance in maternal health and recovery after childbirth. Verbal communication and support post-delivery assist mothers in expressing their experiences, unloading emotional tension, and enhancing adaptation during the postpartum period.

The combination of a lengthy labour duration and limited opportunity for verbal expression or support may amplify the risk of negative outcomes for postpartum mothers—both physically and psychologically. This condition underscores the importance of examining how talking hold functions as an indicator in the postpartum recovery process.

Previous studies affirm that prolonged labour correlates with less satisfactory birth experiences and higher feelings of loss of control by the mother.

Such experiences may influence how a mother responds during postpartum inpatient care, including her openness to discuss her birth experience.

On the other side, research on “talking hold” or postpartum mothers’ verbal interaction is still limited — including how labour duration influences readiness or desire to talk, share narratives, or seek support. Thus, investigating the relationship between labour duration and talking hold is highly relevant.

The inpatient-care Puskesmas Rawat Inap Akelamo as a maternal health service facility in the region provides childbirth and postpartum care services. However, local data on the relationship between obstetric variables like labour duration and psychosocial aspects such as talking hold among postpartum mothers is lacking.

Having local data regarding labour duration and the extent of verbal interaction (talking hold) among postpartum mothers would greatly assist health workers at the Puskesmas in designing postpartum support interventions — especially given that the inpatient postpartum period represents a critical window for maternal physical and psychological recovery.

Understanding factors that influence talking hold can help healthcare providers deliver a more holistic approach—not only focusing on a mother’s physical recovery but also addressing the verbal and emotional support that can optimize postpartum recovery and adaptation.

From a midwifery perspective, prolonged labour may act as a trigger for maternal fatigue, stress, or birth trauma, which in turn may affect a mother’s ability to communicate or share experiences postpartum. Therefore, labour duration emerges as a potential risk factor warranting research into its association with talking hold.

This study aims to provide empirical insight into the relation between labour duration and the tendency or ability of mothers to verbally communicate or receive verbal support during the postpartum phase. The findings are expected to inform management of inpatient postpartum care at Puskesmas Rawat Inap Akelamo.

Theoretically, the proposed model posits that the longer the childbirth process, the greater the physical and emotional burden experienced by the mother — which may hinder or alter her communication patterns (talking hold) in the postpartum period.

Accordingly, this research is essential for mapping how labour duration can serve as an indicator for identifying the need for verbal support interventions in postpartum mothers. It

also aims to enrich the maternal and midwifery literature by integrating socio-communicative aspects post-birth.

The chosen study title is “The Relationship between Labour Duration and Talking Hold in Postpartum Mothers in the Inpatient Service Area of Puskesmas Rawat Inap Akelamo.” Through this research, it is anticipated that the degree of association between labour duration and talking hold among postpartum mothers will be revealed, enabling the formulation of practical recommendations to enhance postpartum care quality in the health facility.

## **2. RESEARCH METHOD**

**Research Method,** This study employed an analytic observational research design with a cross-sectional approach. This approach was chosen to identify the relationship between two variables—labour duration (independent variable) and talking hold (dependent variable)—at a single point in time. The study population comprised all postpartum mothers who gave birth within the working area of the Akelamo Inpatient Health Center during the study period. Sampling was conducted using a purposive sampling technique, with inclusion criteria: mothers who had normal delivery, were within 1–7 days postpartum, and willingly consented to participate.

**Setting, Duration, and Instruments,** The research was conducted at the Akelamo Inpatient Health Center, chosen for its comprehensive maternal services and relatively high number of childbirth cases each month. The study spanned approximately three months, covering preparation, data collection, and data analysis stages. Instruments used included an observation sheet for labour duration (recorded from partograph notes) and a talking hold questionnaire developed from verbal communication indicators among postpartum mothers. The questionnaire’s validity and reliability were tested prior to data collection.

**Conceptual Framework,** The conceptual framework illustrates the relationship between labour duration and the level of talking hold among postpartum mothers. Theoretically, the longer the duration of labour, the greater the physical and emotional strain experienced by the mother. This condition may reduce her willingness or ability to communicate or share her experiences after birth. Conversely, a shorter and smoother labour process tends to increase positive feelings and openness to interaction and social support. Hence, labour duration is hypothesized to have a negative correlation with the level of talking hold.

**Operational Definition of Variables, Labour Duration:** The length of time from the onset of regular uterine contractions until the delivery of the baby, measured in hours based on the partograph or medical records. Categories: normal (< 18 hours) and prolonged ( $\geq$  18 hours).

Talking Hold: The mother's ability and willingness to talk, share her experience, or express emotions to health workers or close persons. Measured using a Likert-scale questionnaire (1–5) including aspects of verbal interaction, emotional openness, and social support. Postpartum Mother: A woman within six weeks after delivery, with data collection focused during the first postpartum week.

Research Flow, The research process began with the planning stage, including problem identification, instrument preparation, and obtaining permissions. Next, data collection was conducted through observation and questionnaire distribution to eligible respondents. Collected data were then processed and analyzed statistically using the Spearman Rank correlation test to examine the relationship between labour duration and talking hold. The final stage involved interpreting results, report preparation, and formulating recommendations for postpartum communication support interventions based on the study findings.

### **3. RESULTS AND DISCUSSION**

#### **General Data Analysis (Demographic Characteristics of Respondents)**

A total of 30 postpartum mothers participated in this study, divided equally into two categories based on the duration of labor: 15 with normal labor (<18 hours) and 15 with prolonged labor ( $\geq$ 18 hours).

**Table 1.** The demographic distribution of respondents is presented below.

<b>Variable</b>	<b>Category</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Age (years)	20–25	8	26.7
	26–30	12	40.0
	>30	10	33.3
Parity	Primiparous	13	43.3
	Multiparous	17	56.7
Education Level	Primary	7	23.3
	Secondary	15	50.0
	Higher	8	26.7
Occupation	Housewife	19	63.3
	Working mother	11	36.7

Interpretation:

Most respondents were aged 26–30 years (40%), multiparous (56.7%), and secondary school graduates (50%). The majority were housewives (63.3%). This indicates that the participants represent a typical postpartum population in rural health centers, dominated by productive-age mothers with moderate education and domestic roles.

**Table 2.** Specific Data Analysis (Duration of Labor and Talking Hold Levels).

Variable	Category	Frequency (f)	Percentage (%)
Duration of Labor	Normal (<18 hours)	15	50.0
	Prolonged ( $\geq$ 18 hours)	15	50.0
Talking Hold Level	Low (score 20–33)	7	23.3
	Moderate (score 34–46)	12	40.0
	High (score 47–60)	11	36.7

Interpretation:

Half of the participants (50%) experienced prolonged labor, while the other half underwent normal delivery. The distribution of talking hold levels revealed that most mothers (40%) had moderate levels of communication and emotional openness, while 36.7% showed high levels, and 23.3% reported low engagement. This suggests that while most postpartum women were able to express themselves, some still showed reduced communication capacity—likely influenced by exhaustion from prolonged labor.

**Table 3.** Statistical Test Result (Spearman Rank Correlation in SPSS Format).

Correlations	Duration of Labor	Talking Hold
Spearman's rho Duration of Labor	Correlation Coefficient = 1.000	-0.623**
	Sig. (2-tailed) = —	0.001
	N = 30	30
Spearman's rho Talking Hold	Correlation Coefficient = -0.623**	1.000
	Sig. (2-tailed) = 0.001	—
	N = 30	30

Interpretation:

The Spearman's correlation coefficient ( $r = -0.623$ ) indicates a moderate negative relationship between labor duration and talking hold levels. The p-value ( $0.001 < 0.05$ ) confirms that this correlation is statistically significant.

This means that the longer the labor process, the lower the mother's tendency to engage in talking hold behavior after delivery. Prolonged labor likely contributes to fatigue, emotional stress, and reduced motivation to communicate.

## Discussion

The findings revealed a significant negative correlation between the duration of labor and the mother's talking hold behavior. This indicates that the longer the labor, the lower the mother's emotional communication with her newborn. This aligns with perinatal psychology

theory, which suggests that physical exhaustion from prolonged labor reduces maternal affective responses (Wulandari, 2020).

Labor lasting more than 12 hours is classified as prolonged labor and often triggers physiological stress, resulting in decreased energy and emotional stability (Manuaba, 2018). This condition reduces the mother's motivation to interact or talk to her baby after delivery.

Conversely, mothers who experience shorter labor tend to maintain better physical and emotional conditions, enabling faster expression of affection through talking hold behaviors. This supports Arifin's (2021) statement that physical and emotional balance postpartum is essential for early bonding formation.

Hormonal factors also play a crucial role. During prolonged labor, the level of oxytocin—a hormone responsible for maternal bonding—may decrease due to stress (Kemenkes RI, 2022). The reduction of this hormone weakens the natural urge to touch and talk to the baby.

This study's results are consistent with Ratnasari and Nurhayati (2021), who found that mothers with prolonged labor had lower emotional bonding scores than those with normal delivery. Both variables are closely associated with maternal psychological well-being.

Fatigue from continuous contractions can cause sleep disturbances, postpartum pain, and physical discomfort, which make mothers less responsive during early interactions. According to Mercer's Maternal Role Attainment Theory (2019), a mother's successful adaptation is influenced by her physical condition and environmental support.

Cultural and social support factors in the Akelamo area also influence talking hold behavior. Some mothers reported limited family emotional support, which delayed bonding formation. Dwiastuti (2022) highlighted that social support mediates emotional well-being among postpartum women.

Knowledge and educational background further affect postpartum responses. Mothers with higher education tend to understand the importance of early communication with their babies. Roy's Adaptation Model (2020) emphasizes cognitive coping as a crucial mechanism in managing physiological stress.

Parity appears to be a contributing factor. Multiparous mothers are generally more emotionally prepared and adaptable even when facing long labor. Lubis et al. (2021) found that prior childbirth experiences enhance maternal psychological readiness.

Physiologically, prolonged labor can cause glucose depletion and electrolyte imbalance, leading to extreme fatigue and negative emotions. These conditions suppress positive behaviors like smiling or gentle speech toward the newborn (Soetjningsih, 2020).

These findings reinforce that talking hold behavior is influenced not only by psychological but also by physiological aspects. When the body experiences sustained stress, the autonomic nervous system dominates, suppressing affectionate responses (Putri, 2021).

Psychologically, mothers enduring long labor may experience anxiety about their baby's safety, delaying emotional adaptation. Santoso (2019) reported that postpartum anxiety levels inversely correlate with early maternal bonding behavior. The healthcare environment also impacts childbirth experiences. Facilities with empathetic healthcare providers can alleviate psychological pressure during labor (Mulyani, 2022).

Hence, prolonged labor duration can be considered a risk factor that needs psychosocial and educational management to prevent disruption of bonding development. Healthcare professionals should provide emotional counseling post-delivery.

Implementing early skin-to-skin contact and talking therapy has proven effective in enhancing maternal-infant bonding even after prolonged labor (Hidayat, 2021). This supports the use of communication-based interventions in maternal care.

Overall, the study concludes that labor duration is closely related to the quality of postpartum talking hold behavior. These findings emphasize the need for a holistic approach that integrates physical, emotional, and social dimensions in supporting mothers after childbirth.

#### **4. CONCLUSION**

Based on the study findings, it can be concluded that there is a significant relationship between the duration of labor and talking hold behavior among postpartum mothers. Mothers who experienced prolonged labor tended to show higher levels of physical fatigue and psychological stress, which interfered with their ability to engage in emotional and verbal communication with their infants. This indicates that the duration of labor affects not only the physiological aspects but also the emotional interaction between mother and baby after childbirth.

These findings reinforce Mercer's Maternal Role Attainment Theory, which emphasizes that a mother's successful adaptation to her maternal role depends on physical, psychological, and social balance. Prolonged labor can disrupt this balance, making it difficult for mothers to express affection through eye contact, touch, and verbal interaction. Therefore, stress management during labor should be considered a key component of maternal care by healthcare professionals.

In addition to labor duration, social and environmental support also plays a crucial role in influencing talking hold behavior. Mothers who received emotional support from family members and healthcare providers were more capable of bonding with their babies, even after experiencing long labor. This suggests that psychosocial support serves as a protective factor against the negative effects of prolonged labor on maternal–infant bonding.

The results further show that talking hold behavior is shaped by both psychological and physiological conditions. The combination of exhaustion, emotional distress, and lack of social support may hinder healthy emotional connection between mother and infant. Therefore, a comprehensive midwifery approach should integrate physical, emotional, and psychosocial aspects to promote maternal well-being after delivery.

In summary, this research highlights the importance of healthcare providers addressing the emotional state of mothers who have undergone prolonged labor. Preventive efforts through education, counseling, and therapeutic communication—such as talking therapy and skin-to-skin contact—should be implemented. By doing so, mothers can adapt more effectively and establish a positive early bond with their infants, contributing to the baby’s optimal growth and development.

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