

Analysis of the Maternal Labor Process with Smooth Delivery

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ABSTRACT

Background: The high maternal mortality rate includes a lack of road access mothers- in-partu to health services that take a long time and go through the forest so that the birth process becomes hampered. This study aimed to analyze the birth process mother inpartu with smoothness delivery.

Methods: In this study using a correlational analytic design with a cross sectional approach. Population and Sample in study This is all Mother inpartu at the Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province as many as 30 respondents with method sampling using accidental sampling technique. Data collection uses questionnaires and observations. bivariate analysis to see the relationship between the independent variables and the dependent variable using the Chi Square statistical test with a significant level of $\alpha = 0.05$.

Results: The results of the research show that some big respondent obstructed during labour that is as many as 17 respondents (56.7%), some big respondent no fluent in labor that is as many as 17 respondents (56.7%). From the results data analysis shows that is related to the birth process Mother inpartu with smoothness childbirth with mark P value $< \alpha 0.05$ ($0.000 < 0.05$).

Conclusion: It is recommended that health workers (midwives) play an active role in determining the smoothness of delivery, and it is recommended that mothers have a pre-delivery plan to give birth in health facilities, so that during the delivery process there are no obstacles and run smoothly.

I. Introduction

Childbirth is the beginning and the end and the culmination of everything that happens from conception to expulsion. Easy or not the delivery process will determine the prenatal baby's life. In Indonesia, the utilization of delivery assistance by professional staff (midwives) in the community is still very low compared to the expected target. This is caused by maternal factors such as knowledge, attitudes towards choosing birth attendants, and access to health services ([Aziz, et al. 2020](#)).

Through activities to increase access and quality of services, build community potential, especially community awareness for preparation and action in saving mothers and newborns. The Millennium Development Goals (MDGs) have a target of reducing the Maternal Mortality Rate which has been set in its 5th goal by three quarters from 1990 to 2015. The MDGs have not been achieved, namely reducing the MMR by 102 per 100,000 live births in 2015 and actually an increase of 359 per 100,000 live births is a serious problem in the health sector ([Janiarli et al. 2018](#)). In the end, the MDGs stopped in 2015, for this reason, scientists and the public are trying to explore the concept of Sustainable Development Goals (SDGs) as their successors. The SDGs are an expansion and continuation of the MDGs activities with 17 goals, one of which is to reduce MMR. The government took a strategy that was used as a solution to the high maternal mortality rate, namely the 2008 Childbirth Planning and Complication Prevention Program, this strategy was established by the Indonesian Minister of Health ([Ulfah et al. 2019](#)).

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The results of the 2017 Indonesian Demographic and Health Survey (IDHS) show that the main causes of maternal mortality are still high, namely bleeding (28%) and eclampsia (24%). In addition, the lack of access to health facilities contributes to the high MMR in Indonesia. Utilization of delivery services at health facilities in Indonesia is still low, namely 46 percent choosing to choose is a change in the pattern of seeking health services. Meanwhile, in the Banggai district, the 2018 MMR report out of 5939 live births resulted in 49 infant deaths. ([Banggai District Health Office, 2019](#)).

From the health report at the Uemea Village Pustu, it was found that there were 8 pregnant women who gave birth in 2018, of the 8 people, 4 (50%) of them were in the delivery process, constrained by access roads such as floods and landslides so that access was cut off and gave birth at home, while 4 (50%) of people managed to give birth at the health center with the assistance of a local midwife. Road access is quite far to get to the health facility which takes approximately 1 hour, by passing through the forest and having to cross the river is an obstacle in the delivery process ([Dahlberg et al, 2016](#)). Mothers giving birth must be able to anticipate so as not to experience these obstacles and the midwife's active role is needed for the sake of successful delivery.

The condition of road access to the nearest health facility is one of the obstacles in the success of childbirth, apart from the considerable distance that must be traveled by mothers-in-partu, the geographical conditions of the region (high rainfall, floods, landslides) are also factors that hinder the delivery process, these obstacles encourage mothers to have a plan before the delivery process, besides that the midwife's activeness in assisting the delivery process is also a supporting factor in the success of the delivery ([Preis et al, 2019](#)).

There are three factors that influence a person to utilize health services, namely predisposing factors, supporting factors and driving factors. According to Green in Notoadmodjo (2015) which is included in 1). Predisposing factors are knowledge, attitudes, beliefs, beliefs; 2). Supporting factors are the physical environment, namely the availability or unavailability of health facilities and infrastructure; 3) The driving factors are the family, the behavior of health workers, the behavior of the surrounding community.

The importance of the government's efforts to be able to work together to support efforts to reduce maternal mortality, namely increasing access and quality of health services through a strategy to improve health services that are equitable, affordable and fair with a focus on improving health facilities, by establishing partnerships with the public and the private sector ([Nilsson, et al, 2013](#)). To achieve this target, effective interventions are needed which must be supported by accredited health facilities and quality health service management, policies regarding the distribution of health workers and equipment in health facilities and for health workers as well as increasing the competence and skills of health workers ([Çalik et al, 2018](#)). This study aimed to determine differences in anxiety levels before and after receiving the first dose of the Covid-19 vaccine among medical personnel.

II. METHODS

In this study using a correlational analytic design with a cross sectional approach. Population and Sample in study This is all mother inpartu at the Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province as many as 30 respondents with method sampling using accidental sampling technique. Data collection uses questionnaires and observations. bivariate analysis to see the relationship between the independent variables and the dependent variable using the Chi Square statistical test with a significant level of $\alpha = 0.05$.

As the ethical consideration, the researcher use the informed consent, anonymity principle and confidentiality principle.

III. RESULTS

Table 1. Distribution frequency respondent based on Age, Education, Occupation and Parity

Age	frequency	Percentage (%)
<20 Years	2	6,7
20-30 Years	16	53,3
>30 Years	12	40.0
Education		
Elementary School	5	16,7
Junior High School	14	60.0

Senior High School	8	13,3
University	3	10.0
Work		
Housewife	21	70.0
Private	4	13,3
Self-employed	2	6,7
civil servant	3	10.0
Parity		
Primipara	12	40.0
Multipara	10	33,3
Grandmulti	8	26,7

Research results obtained that part big respondent aged 20-30 years that is as many as 16 respondents (53.3%), some big respondent junior high school education that is as many as 14 respondents (60.0%), some big respondent No work (housewife) ie as many as 21 respondents (70.0%) and almost half respondent primipara parity ie as many as 12 respondents (40.0%).

Table 2. Distribution frequency respondent based on the Labor Process, the smoothness of labor, Mother Inpartu

Maternal Process	Inpartu Delivery frequency	Percentage (%)
Hampered	17	56,7
Unhindered	13	43,3
Smoothness Labor		
Fluent	13	43,3
Not Current	17	56,7

Research results obtained that part big respondent obstructed during labour that is as many as 17 respondents (56.7%). Research results obtained that part big respondent no fluent in labor that is as many as 17 respondents (56.7%).

Table 3. The Relationship between Inpartu Mother's Labor Process and Smoothness Delivery

Labor Process	Labor Smoothness				Total	
	Fluent		Not smooth			
	N	%	N	%	N	%
Hampered	1	5,9	16	94,1	17	100
Unhindered	12	92.3	1	7,7	13	100
Amount	13	43,3	17	56,7	30	100

Chi-Square with P value < α 0.05 (0.000 < 0.05)

then H_0 is rejected H_1 is accepted

Research results obtained that of 30 respondents there were 16 respondents (94.1%) who were hampered during labor and not _ fluent in labor . Data analysis using the *Chi Square statistical test* obtained values P value < α 0.05 (0.000 < 0.05) then H_0 is rejected H_1 is accepted, meaning that there is a relationship between mother inpartu delivery process and smoothness Delivery at Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province

IV. DISCUSSION

Maternal Inpartu Delivery Process

Based on the table above, it was found that of the 30 respondents, some big respondent obstructed during labour that is as many as 17 respondents (56.7%), meanwhile 13 respondents (43.3%) who were not obstructed in the delivery process.

Labor is the process of moving the fetus, placenta and membranes out of the uterus through the birth canal. This process begins with freezing and dilation of the cervix due to uterine contractions with regular frequency, duration and strength (Aktaş et al, 2019). The birth process is the most difficult part that must be faced by a mother, it takes a very extraordinary sacrifice from a mother, they even have to risk their lives to give birth to their child.

Obstructed respondents in labor because road access which is far enough to get to the health facility takes approximately 1 hour, by passing through the forest and having to cross the river so that there are many obstacles in the delivery process, while respondents who are not hampered in the delivery process this is because the respondent prepares and has a plan before the delivery process for give birth in a health facility, so that during the delivery process is not hampered ([Nilsson et al, 2013](#)).

Smoothness Labor

Based on the table above, it was found that of the 30 respondents, some big respondent part big respondent no fluent in labor that is as many as 17 respondents (56.7%), meanwhile 13 respondents (43.3%) who went smoothly in the delivery process.

There are three factors that affect a person's smooth delivery in health services, namely predisposing factors, supporting factors and driving factors. According to Green in Notoadmodjo (2015) which is included in 1). Predisposing factors are knowledge, attitudes, beliefs, beliefs; 2). Supporting factors are the physical environment, namely the availability or unavailability of health facilities and infrastructure; 3) The driving factors are the family, the behavior of health workers, the behavior of the surrounding community ([Sagita, 2018](#)).

The results showed that most of the respondents did not go smoothly in childbirth, this was due to environmental factors which included distance or access to health services, respondents had to pass through forests and rivers to get to the nearest health facility, so it was not uncommon when there were obstacles such as floods, heavy rains, as well as landslides while in labour, respondents chose to deliver at home with the help of a traditional healer to assist in giving birth. Meanwhile, respondents who went smoothly in childbirth were due to the readiness of the respondents when they were about to give birth ([Trevathan, 2015](#)). In addition, the experience of the respondents from previous births made the respondents to be active in carrying out ANC visits, so that when childbirth can be anticipated when obstacles or obstacles occur. Therefore, the midwife's active role is also decisive in determining the smoothness of the delivery ([Sandhi et al, 2021](#)).

The Relationship between Inpartu Mother's Labor Process and Smoothness Delivery at Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province

Research results obtained that of 30 respondents there were 16 respondents (94.1%) who were hampered during labor and not fluent in labor. While those who don't hampered when the process of labor and running smoothly in labor as many as 12 respondents (92.3%). Data analysis using the Chi Square statistical test obtained values $P \text{ value} < \alpha 0.05$ ($0.000 < 0.05$) then H_0 is rejected H_1 is accepted, meaning that there is a relationship between mother inpartu delivery process and smoothness Delivery at Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province.

One effort for prevent lateness handling in labor is with exists readiness labor. There is readiness labor can done with prepare plan birth and prepare plan If happen complications in childbirth mother. Prepare plan birth is plans made by mothers, fathers and officers service health for identify helper and place maternity, as well planning savings for prepare cost labor. Then the family is also necessary prepare plan If happen complications in childbirth mother, like identify place referrals and transportation for reach place said, held preparation financial as well as identify maker decision first and maker decision second If maker decision First No is in place ([Lailia et al, 2015](#)).

Obstructed respondents during labor and not fluent in labor matter This because a number of factor including lack readiness delivery, respondent not enough active in prepare plan For childbirth , besides That the condition of road access to the nearest health facility is one of the obstacles in smooth delivery, besides the considerable distance that must be traveled by mothers inpartu, the geographical conditions of the region (high rainfall, floods, landslides) are also factors that hinder the delivery process, these obstacles encourage mothers to have a plan before the delivery process, besides that the midwife's activeness in assisting the delivery process is also a supporting factor in the success of the delivery. The results of this study are in line with [Sagita's research \(2018\)](#) on preventing delays in maternal referrals in Majene District, finding that geographical factors, distance and road infrastructure greatly affect community access to referrals, especially for people who live in remote areas and they have to use transportation facilities. traditional way to make maternal referrals to health facilities. This is also in line with research in Nigeria where utilization of health services is determined by distance and family economy ([Carson et al, 2017](#)).

Respondents who were not hampered and smooth in childbirth this was because the respondents prepared a plan from an early age birth and prepare plan If happen complications during childbirth, apart from that the respondent's experience from previous births made the respondent to actively make ANC visits, so that when childbirth can be anticipated when obstacles or obstacles occur ([Dahlberg et al, 2016](#)). The midwife's active role is also decisive in determining the smoothness of the delivery. Midwives have an important role and are a supporting factor in smooth delivery, so it is not uncommon for midwives to pick up mothers in labor when there are obstacles or obstacles to the nearest health facility. This is in accordance with [Alliman's research \(2019\)](#) which states that factors that have a significant relationship with the coverage of deliveries by health workers are the distance traveled and environmental conditions to the nearest health center/health facility.

V. CONCLUSIONS

Based on the results of the analysis, the conclusions that can be drawn from this research are as follows respondents at the Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province is hampered in the delivery process that is as many as 17 respondents (56.7%), mostly respondents at the Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province does not fluent in labor that is as many as 17 respondents (56.7%), there is a relationship between mother- in-partu delivery process and smoothness Delivery at Health Center Toili 2 Uema Village Regency proud Central Sulawesi Province with mark P value $< \alpha 0.05$ ($0.000 < 0.05$).

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REFERENCES

- Aktaş, S., & Aydın, R. (2019). The analysis of negative birth experiences of mothers: a qualitative study. *Journal of reproductive and infant psychology*, 37(2), 176-192.
- Alliman, J., Stapleton, S. R., Wright, J., Bauer, K., Slider, K., & Jolles, D. (2019). Strong Start in birth centers: Socio-demographic characteristics, care processes, and outcomes for mothers and newborns. *Birth*, 46(2), 234-243.
- Azis, M., Alza, N., Triananinsi, N., Pertiwi, A. Y. D., & Kamaruddin, M. (2020). The Effectiveness of Pregnancy Exercise on the Smoothness of the Second Stage of Labor in Mother-in-Laws at the Bulupoddo Health Center, Sinjai Regency. *Medika Alkhairaat: Jurnal Penelitian Kedokteran dan Kesehatan*, 2(2), 70-74.
- Çalik, K. Y., Karabulutlu, Ö., & Yavuz, C. (2018). First do no harm-interventions during labor and maternal satisfaction: a descriptive cross-sectional study. *BMC pregnancy and childbirth*, 18, 1-10.
- Carson, A., Chabot, C., Greyson, D., Shannon, K., Duff, P., & Shoveller, J. (2017). A narrative analysis of the birth stories of early-age mothers. *Sociology of Health & Illness*, 39(6), 816-831.
- Dahlberg, U., Persen, J., Skogås, A. K., Selboe, S. T., Torvik, H. M., & Aune, I. (2016). How can midwives promote a normal birth and a positive birth experience? The experience of first-time Norwegian mothers. *Sexual & Reproductive Healthcare*, 7, 2-7.
- Ellis, J. A., Brown, C. M., Barger, B., & Carlson, N. S. (2019). Influence of maternal obesity on labor induction: a systematic review and meta-analysis. *Journal of midwifery & women's health*, 64(1), 55-67.
- Janiarli, M., & Fahmi, Y. F. (2018). The Relationship between Delivery Assistance and the Smoothness of the Second Stage of Labor at the Tambusai Health Center, Tambusai District, Rokan Hulu Regency. *Jurnal Maternitas Kebidanan*, 3(2).
- Lailia, I. N., & Nisa, F. (2015). Husband's assistance for the smooth delivery process at BPM Arifin S Surabaya. *Journal of Health Sciences*, 8(1).
- Martínez-Galiano, J. M., Hernández-Martínez, A., Rodríguez-Almagro, J., & Delgado-Rodríguez, M. (2019). Quality of life of women after giving birth: associated factors related with the birth process. *Journal of clinical medicine*, 8(3), 324.
- Nilsson, L., Thorsell, T., Hertfelt Wahn, E., & Ekström, A. (2013). Factors influencing positive birth experiences of first-time mothers. *Nursing research and practice*, 2013.
- Preis, H., Eisner, M., Chen, R., & Benyamini, Y. (2019). First-time mothers' birth beliefs, preferences, and actual birth: A longitudinal observational study. *Women and Birth*, 32(1), e110-e117.

- Provincial Health Office, (2019). Central Sulawesi Provincial Health Office Profile 2019. [Central Sulawesi Provincial Health Office](#)
- Sagita, Y. D. (2018). The relationship between the level of anxiety and the duration of the second stage of labor in mothers giving birth at RSIA Anugerah Medical Center in Metro City. [Midwifery Journal: Jurnal Kebidanan UM. Mataram](#), 3(1), 16-20.
- Sandhi, S. I., & Lestari, K. D. (2021). The Psychological Relationship of Maternity Mothers with the Smoothness of the Second Stage of Labor at the Bhakti Ibu Maternity Hospital in Semarang. [Jurnal Surya Muda](#), 3(1), 23-32.
- Trevathan, W. (2015). Primate pelvic anatomy and implications for birth. [Philosophical Transactions of the Royal Society B: Biological Sciences](#), 370(1663), 20140065.
- Ulfah, B., & Susanti, A. (2019). The Relationship between Delivery Assistance Support for Smooth Delivery in the Working Area of Martapura 1 Health Center in 2019. [Journal of Midwifery and Reproduction](#), 2(2), 54-60.