

Causes of Death Mother and Efforts to Reduce Mother Death Numbers in Luwu District, South Sulawesi Province

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Abstract

This study aims to analyze the indirect causes of maternal death. This type of research is qualitative with a case study approach. Data collection was carried out by document search, community visits, and interviews. The results showed that the total number of maternal deaths in Luwu district totaled 19 were spread across 13 sub-districts, and maternal deaths generally occurred during labor and the puerperium. The indirect causes of maternal death can be seen from the close and far determinants. The close determinants were reviewed from three too late and four too, infectious diseases, far more determinant nutritional status in terms of distance, and the presence of obstetricians in obstetric emergencies. Efforts to reduce maternal mortality are the main focus on the prevention of complications, immediately make referrals when maternal conditions are still optimal. Empowering mothers and families.

Keywords: *indirect causes, maternal mortality rate, close determinant, far determinant*

Introduction

The World Health Organization defines maternal deaths as deaths during pregnancy, childbirth and childbirth or in the period 42 days after the end of pregnancy, due to all causes related to pregnancy or treatment and not due to injury or accident¹. Every day, there are around 830 women in the world who die from complications or illnesses due to pregnancy and childbirth. 94% of these deaths occur in developing countries and young women who are pregnant at the age of 15-19 years have a higher risk of complications and death during pregnancy, and childbirth than other fertile ages. In 2017 there were around 295,000 women who died during pregnancy and childbirth²

Global maternal mortality is caused by complications during pregnancy and childbirth, one of the factors causing maternal death is inadequate antenatal management, and the lack of public access to health workers. For example, midwives or doctors and chronic diseases that have been suffered by mothers before pregnancy, one of which is Kidney disease, cancer, heart disease, tuberculosis, and asthma, therefore it takes a big role from the hospital to help accelerate the reduction in maternal mortality²

Based on data from the Indonesian Demographic and Health Survey (SDKI) in 2012, the maternal mortality rate in Indonesia is still high at 359 per 100,000 live births. This figure is slightly down when compared with the 1999 IDHS figure of 390 per 100,000 live births, the decrease is not too significant. In the era of the Millennium Development Goals (MDGs) which is the 5th target by reducing the Maternal Mortality Rate (MMR) to 102 per 100,000 live births, achieving the 5th MDGs target at that time was off track, meaning that hard and hard work was needed to achieve it.

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South Sulawesi Province is one of the areas of distribution of maternal mortality in Indonesia. Based on data from the health profile of the province of South Sulawesi, from several number of regencies in South Sulawesi, Luwu Regency is one of the contributors to maternal mortality. Data three years in a row in 2016 to 2018, Luwu regency ranks first as a contributor to maternal mortality (2016), Luwu regency again contributes to maternal mortality and ranks fifth (2017) while in 2018 Luwu regency contributes to maternal mortality in the sequence fourth after Enrekang district. Based on the condition, the purpose of this study is an analysis related to indirect causes of maternal death to reduce maternal mortality in Luwu district.

Material and Methods

This research was qualitative with a case study approach. The study was conducted in the district of Luwu, South Sulawesi Province. Source of research information on Verbal Maternal Autopsy (OVM) documents and other supporting documents available in midwifery services in Luwu district. The selection of participants at the community level numbered eleven people who were selected using the purposive sampling

method by including the representation of the subjects.

The data collection method was carried out by tracking OVM documents and other supporting documents to analyze the direct cause of maternal death. The collection was also done through observation and in-depth interviews. Community visits to the family of the deceased were carried out to obtain information related to indirect causes of maternal death. The analysis technique in this research was content analysis to get a picture of the research object.

Findings

Indirect Causes of Maternal Death

Indirect causes are evaluated from the close determinant and the remote determinant. Close determinants in terms of three late (late decision, late referral, and too late to get service), four too (too young <20 years, too old> 35 years, too many children and too close the distance of labor), nutritional status and maternal disease. The following indirect causes of maternal death can be seen in the following table.

Table 1. Indirect Causes of Maternal Mortality

| Code | Mother's age | Number of maternal deaths | | | | | | | | | |
|-------|--------------|---------------------------------|--------------------------|------------------|-----------|-----------------------------------|----------|-------------------|------------------------------------|---------|---|
| | | Direct Causes of Maternal Death | | | | Indirect Causes of Maternal Death | | | | | |
| | | Bleeding | Preeclampsia / Eclampsia | Obstructed labor | Infection | Three Too Late | Four too | Chronic Infection | Nutritional Status (LILA <23.5 cm) | Mileage | Existence of Officers (Expert Doctors & Midwives) |
| S | 30 | 0 | | 1 | | 1 | | | | 1 | 1 |
| SK | 23 | 1 | | | | 1 | | | | | 1 |
| IL | 20 | | 1 | | | | | | | | |
| M | 35 | 1 | | | | | | | | | |
| H | 38 | | | 1 | | 1 | 1 | | | 1 | |
| HT | 38 | 1 | | | | 1 | 1 | | | 1 | |
| DS | 31 | | | | 1 | 1 | | | | | |
| F | 35 | 1 | | | | | | | | 1 | |
| HS | 35 | | | 1 | | | 1 | | 1 | | |
| R | 38 | 1 | | | | | 1 | | | | |
| Total | | 5 | 1 | 3 | 1 | 5 | 4 | | 1 | 4 | 2 |

The indirect causes of maternal deaths in Luwu district generally caused by a factor of three being late, factor four too and, distance traveled. The delay factor related to the distance of the mother who will deliver to the health service facility, the family delay recognizes the danger sign so it is too late to decide that the mother is late being taken to the health service facility.

Table 2. Indirect Causes of Postpartum Mortality

| Code | Mother's age | Number of Postpartum Mothers Died | | | | | | | | |
|-------|--------------|-----------------------------------|--------------------------|-----------|-----------------------------------|----------|-------------------|------------------------------------|---------|---|
| | | Direct Causes of Maternal Death | | | Indirect Causes of Maternal Death | | | | | |
| | | Bleeding | Preeclampsia / Eclampsia | Infection | Three Too Late | Four too | Chronic Infection | Nutritional Status (LILA <23.5 cm) | Mileage | Existence of Officers (Expert Doctors & Midwives) |
| R | 34 | | | 1 | | | 1 | | | |
| S | 40 | 1 | | | | 1 | | | 1 | |
| HD | 39 | | | | | 1 | | | | |
| SR | 30 | 1 | | 1 | | | | | | |
| SL | 25 | | 1 | | 1 | | 1 | | 1 | 1 |
| FT | 24 | | 1 | | | | 1 | 1 | | |
| SM | 34 | | | 1 | | | | | | |
| Y | 18 | | | 1 | 1 | 1 | | | 1 | |
| E | 29 | | | 1 | | | 1 | | | |
| Total | | 2 | 2 | 5 | 2 | 3 | 4 | 1 | 3 | 1 |

In most case, the indirect causes of maternal deaths during childbirth caused by infectious diseases. In general, the health of pregnant women will be affected by physical condition both before pregnancy and during pregnancy. Infectious diseases suffered by pregnant women will affect the physical endurance and endurance of the mother's body, where mothers who have them will be more likely to experience complications, especially during labor and the puerperium.

Factor three is late, the results of an interview with the family of the deceased that the mother is late in getting health care caused by the delay in reaching the

referral facility. This delay caused by the location of the house and the referral facilities that are far away, the distance between the Shiva hospital and Sawerigading hospital if taken by four-wheeled transportation then the trip time is ± 4 hours. The following is the delivery of informants in the southern district of Larompong.

' ... Mother experienced severe pain she said the pain was immeasurable, her husband's family brought to the Shiva hospital and there at most around six in the morning entered the Shiva hospital and around five o'clock in the afternoon just referred to the palopo, arrived at palopo the state of the mother was finally

weak died ... “

The delay in giving birth to mothers also caused by family delays in deciding to seek help as soon as possible in a midwifery emergency, following the submission of informants from Bupon sub-district related to the slow delivery of help by health workers because of the delay in the husband's decision to seek help.

The

“ ... Still good in the afternoon I asked permission from the mother, if my illnesses were contacted, the mother felt sick at ten at night, at two in the evening I was called by the village pack because the condition was bleeding, I brought a car if I did not bring a car maybe the mother might die at the place, the shaman had fainted, the mother was bleeding profusely, the placenta had not come out ... “

The four risk factors will too affect the health and safety of the mother during pregnancy. This caused by the readiness of the reproductive organs is not yet ripe (age <20 years) and unhealthy (age > 35 years) to support the process of pregnancy, childbirth, and childbirth so that this situation will affect the physical and maternal health. The following are the results of interviews with informants in the village of North Walenrang sub-district.

“ ... Mothers aged 18 years and first pregnant, giving birth at home helped by his family, mother giving birth twelve days at home, were referred to the hospital in a state of fever and chills, very pale. At the time of birth there were a lot of children said that blood might still have placental remains ... ”

The results of the interviews are obtained from community visits to the Bupon sub-district, following the results of interviews with midwives in the villages that are successfully found.

“ ... Mother is 38 years old and is 8th pregnant, her last education is middle school. You contacted me only twice because you used to live in the city of Palopo .. ”

Factor four is also a risk factor for post-saline bleeding, but it is also a risk factor for parturition to occur. This is due to the physical condition of the mother

which makes it impossible to prepare for pregnancy. The results of the interview in the Bua.

“ ... Signs, the term is water mixed with blood, it rains heavily, at night I see the situation so around dawn at three o'clock I call my neighbor to help bring it down from the mountain , not long after arriving at the puskesmas bua not have the chance to give birth have died and the child has not yet been born .. “

Nutritional status indicates that the mother's intake during pregnancy is less than the required amount and if this lasts longer it will affect the physical endurance of the mother in carrying out healthy, safe, and safe pregnancies and deliveries.

“ ... *Pregnant woman KEK, LILA 22 cm, can get extra biscuits but not regularly eaten so there is no change, the scales are lacking and her mother is also lazy to eat ...* ”

The infectious diseases suffered by mothers before pregnancy one of which is tuberculosis. This situation will be a risk factor for pregnant women's physical and psychological fatigue. The results of interviews with the deceased's family in the district of Lamasi, follows his statement.

“ ... *I went for six months' treatment, she had difficulty taking medication ...* ”

An overview of the results of interviews and observations in the field of, North Walenrang sub-district. Siteba Village is a village in the mountainous region, not all paved roads are only a small part of which has been paved and most of them are still rocky, there is only one supporting puskesmas facility, the distance between the houses is about ± 7-8 km and the distance to the puskesmas ± 2 hours in the road is not slippery.

... *That's why I rebuked her family if there was a mother who was going to give birth, why wasn't I called if I told you I had refused when called out I didn't say day and night, that was again if it could be reached by the motorbike but I still walked back to her house because can not enter the motorbike and traveled on foot for about one to two hours ...* “

The next factor is the presence of an expert doctor during a midwifery emergency, this happens to the

family of the deceased at the regional general hospital when the mother arrives at the hospital but the medical staff namely the obstetrician happens to be absent if in the afternoon or evening then the mother is served by a midwife and general practitioners. The following are the results of the interview with the family of the deceased in the Lebani village of Belopa Utara district.

“ ... His child was born at five in the afternoon, his mother was healthy ji, had an IMD a few hours later the pale mother turned out to be bleeding, there was still a placenta left, there was no obstetrician at the clinic, whose mother was a general practitioner ... ”

Discussion

Indirect Causes of Maternal Death

The results of observations and community visit in 11 districts as areas of the distribution of deaths, that the indirect cause of maternal death in Luwu district is caused by several factors. The mother's delay in getting medical treatment quickly and precisely is caused by the distance to the referral facility for follow-up. Geographical conditions in several villages in the Bua, Bupon, South Larompong, West Suli, Bastem and North Walenrang districts where infrastructure, which is road facilities that are still rocky and muddy, especially in the rainy season does not allow mothers to be referred quickly and precisely, especially in emergencies situations. These results are in line with research in Singorojo sub-district Kendal district, to be able to access community referral facilities in Singorojo sub-district must travel more than 33 km, Singorojo sub-district Kendal district each year has not been able to significantly reduce maternal mortality due to frequent delays in families and officials achieve referral facilities in obstetric emergencies⁴

Another factor as an indirect cause of maternal death is an infectious disease suffered by the mother before pregnancy and continues at the time the mother is pregnant, this condition affects the physical endurance and health of the mother. Field observations of maternal deaths in several villages in Larompong Subdistrict, West Suli, Lamasi, and East Lamasi had a history of infectious diseases. These results are in line with research conducted in Pati district that mothers who have a history of infectious diseases will increase the risk of maternal death by 27.74 times (p-value = 0.0011,

95% CI)⁵

Other risk factors are four too namely maternal age <18 years, this occurs in the northern Walenrang sub-district. Pregnancy aged <20 years increases the risk of complications because the maturity of the reproductive organs is not perfect so it is not ready to support pregnancy and psychologically the mother is not ready to become a parent. Age > 38 years will also affect the health of pregnant women, this is due to the decreased ability of the reproductive organs to refute pregnancy. Risks that can occur if pregnant women <20 years old or > 35 years old are complications of bleeding, parturition, and congestion. The results of the community visit found that maternal death occurred in several districts including Bua, Bupon, South Larompong, and Walenrang. These results are in line with research conducted at Arifin Achmad Regional Hospital in Pekanbaru, found that there is a significant relationship between age <20 years and > 35 years during pregnancy can increase the risk of parturition to occur, ultimately increasing the risk of bleeding and infection⁶

Conclusion

Maternal mortality by indirect causes, namely close determination includes three late and four risk factors too, maternal nutritional and a history of chronic infectious diseases suffered before pregnancy, distant determinants seen from distance, obstetricians not forever in the hospital.

Empowering mothers and families in recognizing danger signs in labor and childbirth. For pregnant women who have high-risk factors and are domiciled in access areas/distances away from health care facilities/referral facilities, pregnant women should be pursued for example by procuring waiting houses that are pursued together with the community or entrusting pregnant women to families close to these facilities. Make a commitment with an obstetrician to be willing to live in the Luwu district.

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