

Analysis of Abdominal Massage Practice Performed by Traditional Birth Attendants in Mamba Community Health Center, East Nusa Tenggara

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ABSTRACT

Background: People in East Manggarai have a strong belief in traditional birth attendants in assisting delivery. It affects the selection of birth attendants. The strong belief in the people of East Manggarai to date is the practice of "Abdominal Massage" during pregnancy and birth delivery. This study aimed to get information about the abdominal massage practice performed by traditional birth attendants in Mamba Community Health Center, East Nusa Tenggara.

Subjects and Method: This study was a qualitative analytical study using a phenomenological study approach in Mamba Community Health Center. The informants of this study were traditional healers, pregnant women who were going to give birth to traditional birth attendants and women who gave birth who had been helped by traditional birth attendants, head of community health center, public figures, and village midwives. This study used the purposive sampling technique. This study used in-depth interviews with non-participant observation to collect the data.

Results: "Abdominal massage" technique to date was still performed by the people in East Manggarai, especially pregnant women and women who would give birth. This "Abdominal

Massage" technique aimed to know and adjust the fetus position. Besides, the mother would feel strong, the baby would be healthy, the maternal body could move easily, and made the process of lowering the fetal head faster. The ingredients used for "abdominal massage" were easy to find. The minimum problems when performing "abdominal massage" with no "abdominal massage" costs made the practice still used by mothers.

Conclusion: The practice of "abdominal massage" is medically dangerous for the mother and the fetus if it is carried out by non-professionals, such as traditional birth attendants.

Keywords: abdominal massage, traditional birth attendant, birth attendant

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BACKGROUND

Delivery is a Trimester III process in pregnancy. It is the final process towards delivery. The safe and comfortable delivery experience is greatly affected by the selection of birth attendants. Inappropriate selection of birth attendants greatly affects maternal and child health in the future (Rohmah, 2010).

Based on the Regulation of Indonesian Ministry of Health number 97 of 2014, article 14 paragraph 1, delivery must be carried out in a health care facility so that delivery assistance meets the normal delivery care standards (APN).

People need to be careful about birth assistance performed by non-health per-

sonnel. It can cause infection due to exposure to dirty environments, non-sterile tools, and non-professionals (Prasetyawati, 2012).

In 2017, every day in the world, there were 810 maternal deaths and around 99% of maternal deaths occurred in developing countries including Indonesia (WHO, 2019). Besides bleeding, infection, hypertension, the main causes of MMR were complications and unsafe abortion due to delivery performed by Traditional Birth Attendants (TBAs). Maternal deaths could be prevented if delivery was assisted by skilled health personnel (WHO, 2019).

The percentage of birth assistance in NTT in 2007 that was carried out at home was 77.1%. Around 63.5% of mothers were assisted by traditional birth attendants, families, or no assistance. Based on Basic Health Research of NTT in 2010, around 67.4% of mothers gave birth and those who gave birth in health care facilities such as village maternity cottage (Polindes) and village health posts (Poskesde) were 32.6% people. The number of mothers giving birth in 2017 in NTT was 143,154 mothers. In addition, births assisted by health personnel in health care facilities were 74,376 births (51.96%). Almost half of mothers giving birth were assisted by non-health personnel at home such as traditional birth attendants (Ministry of Health, 2017).

Various efforts have been conducted by the NTT government to reduce MMR through the Policy of the MCH Revolution. The MCH revolution is one of the efforts to accelerate the reduction of maternal and newborns mortality in great ways through delivery at adequate and 24-hour health care facilities, supported by PONEK (Basic Emergency Obstetric and Neonatal Care) community health centers, PONEK (Comprehensive Emergency Obstetric and Neonatal Care) hospitals, and Maternity Waiting Home Program. It is a residential facility for pa-

tients and their families while waiting for delivery assistance which is located in the community health center area (NTT Health Office, 2019).

The coverage of birth assistance performed by health personnel in East Manggarai Regency in 2015 was 62.8%. It decreased by 62% in 2016 and increased by 68.2% in 2017 (East Manggarai Health Office, 2017). Mamba community health center is part of East Manggarai. The coverage of birth assistance performed by health personnel at Mamba community health center in 2017 was 81.6%. This rate was still below the national target by 100%. In 2017, 17 mothers were assisted by traditional birth attendants at the Mamba community health center. There were 3 mortality cases that occurred in mothers who were assisted by TBA.

This government program was not in line with the public understanding that still tends to involve traditional birth attendants in the delivery process. This is common in East Manggarai, NTT. The use of traditional birth attendant in birth assistance is a form of traditional medicine practice that is still widely practiced by the people in East Manggarai. One example of the involvement of a traditional birth attendants is the skill of "abdominal massage". People believe that the habit of "abdominal massage" aims to know and adjust the fetus position. It will smooth the delivery process. Besides, the maternal body could move easily after the massage.

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by 100%. In 2017, 17 mothers were assisted by traditional birth attendants at the Mamba community health center. There were 3 mortality cases that occurred in mothers who were assisted by TBA.

This study aimed to get information deeper about the "abdominal massage" practice performed by traditional birth attendants in selecting traditional birth attendants as the birth attendant where there were many health personnel in each village in the Mamba Community Health Center.

SUBJECTS AND METHOD

This study was a qualitative analytical study using a phenomenological study approach. This study aimed to get information about the "abdominal massage" practice performed by traditional birth attendant as birth attendant in Mamba Community Health Center. This study was conducted in the Mamba Community Health Center, Elar District, East Manggarai Regency, from August to September 2020. There were several considerations of selecting Mamba community health center as the location of this study, including the increase number of births performed by traditional birth attendant and the maternal and infant mortality rates that were still existed in this community health center.

This study used a purposive sampling technique. The researcher selected a sample that was considered important and could provide reliable and accurate information. The key informants in this study were pregnant women who were going to give birth to traditional birth attendants and women who had been assisted by traditional birth attendants. The main informants were traditional birth attendants who were still actively helping with delivery. The supporting informants were the head of the Mamba community health center, public figures, and village midwives.

This study used non-participant observation and in-depth interviews to collect the data. This study used interview guidelines, stationery, laptops, notebooks, voice recorders, and cameras for documentation. The data obtained would be analyzed using qualitative data analysis (Miles and Huberman, 1994) including data collection, data reduction, data display, or data presentation in the form of tables, figures, matrices, descriptions, and so on. The last stage was drawing conclusions and verification.

RESULTS

"Abdominal Massage" Technique

"Abdominal massage" was a common thing to do. It is still conducted by mothers who wanted to have children, pregnant women, and women who had birth in East Manggarai Regency, especially the Mamba Community Health Center.

In this "abdominal massage" technique, the researcher identified the steps and methods used by the traditional birth attendant to perform the "abdominal massage" process. Almost all the traditional birth attendant in the Mamba Community Health Center used the same technique in massaging the stomach. Massaging the stomach in pregnant women has started from the beginning of pregnancy until before delivery. It depended on the mothers. There were several steps or techniques for "abdominal massage" during pregnancy such as putting oil on the hands of the TBA, putting the hands on the left and right sides of the mother's stomach, and pushing the stomach towards the middle. Furthermore, one hand of the TBA was on the symphysis pubis and the other was at the bottom of the xiphoid process. The stomach was pushed from below and from above to the middle. This was conveyed through the following statement:

"Yes... I do abdominal massage if a mother comes to me. Starting at one-month age so

that the uterus can be brought inside. Three months then seven months. Do it at the seventh or at the ninth month so that the mother has no pain during labor. There is no other way to do abdominal. It is just like the other (other TBA) Yes... all I made was put my hands on the edge of the stomach then pulled the stomach in. Then I moved, put my hand below the stomach (middle) and above the stomach then I also pulled it to the middle so that the uterus and the baby were in the middle". (In-depth interview, TBA1)

This statement is in line with a statement from the next informant (M1) about abdominal massage techniques during pregnancy. After performing abdominal massage, the pregnant women would feel more relaxed when moving.

"I've often come to ende (TBA) when I was pregnant and before delivery I asked her to accompany me. When I was pregnant, I was massaged so that the uterus was strong and did not fall off. I did not feel any pain, so I was happy. Ende also patiently waited and accompanied me until delivery" (In-depth interview, WL1).

Mothers who have had an abdominal massage during pregnancy and were assisted during delivery could move easily. In addition, mothers were easier to perform early mobilization. Delivery assisted by a TBA was also considered fast, friendly, and patient.

"Before delivery, I had asked ende to massage me... it was good so I would not feel heavy on my stomach. Ende only put her hands on my stomach then massaged as usual. After delivery, i felt fresh and could easily move". (In-depth interview, M2)

The next informant explained about the abdominal massage technique that which aimed to change the position of the fetus in the womb. The fetal position meant the transverse and breech location to make labor process faster.

"For me, I put my hands on the side of the mother's stomach and massaged, then moved above and below the stomach so that the blood of the child in the womb would blend. If a pregnant woman said that the baby in her stomach was not in the position it should be (breech or transverse location), I would massage by turning it slowly so that the child's head was below the stomach. If I got this case, it could not be done at once, it should be done more than three or four times until the child in the stomach was in a good position". (In-depth interview, TBA2, TBA3)

The "Abdominal massage" technique performed by traditional birth attendants during the delivery process was slightly different from the abdominal massage technique during pregnancy. All TBAs had the same ways in performing abdominal massage during delivery. First, the TBA put the ingredients in the vaginal orifice of the mother who was going to give birth. It aimed to smooth the labor process. The blood and fluids would come out and the mother's stomach hurts afterwards. Furthermore, the abdominal massage technique was carried out by rubbing the mother's stomach with oil and pushing the stomach so that the baby in the womb could come out as soon as possible. This is in line with statements from informants. (TBA4, TBA5)

"I have ever helped two people at one night. One mother had twins and the other did not. Fortunately, the midwife for twins came quickly so the midwife could immediately help. I helped the other because when they called me the amniotic fluid had come out and the baby's head was already down. So, I just need to massage the stomach down a little so the baby would quickly come out". (In-depth Interview, TBA4)

From the first to the third child, i did my own delivery independently assisted by my parents. If I helped others' delivery before the baby came out, I rub the wooden leaves

and oil on the door (vaginal orifice) then I fanned it so that the baby was born quickly. Then waiting for the blood and water to come out. If the mother was sick, I massaged her stomach downwards so that the baby could quickly come out. (In-depth interview, TBA5).

Ingredients Used in “Abdominal Massage”

Traditional ingredients in performing "abdominal massage" techniques for pregnant women and women in labor are still used to day in the Mamba Community Health Center. The ingredients were water, oil such as coconut oil, palm oil, and eucalyptus oil, chewed coconut meat, ginger, jengok root, garlic, and leaves. During pregnancy, before the abdominal massage, the TBA rubbed her hands with oil and rubbed it on the pregnant woman's stomach. In addition, chewed coconut meat was placed on the head of pregnant women to bring a relaxing effect. Ginger was used to massage the stomach during late pregnancy to reduce pain before delivery. Jengok root was believed to exorcise demons so that pregnant women and fetuses were protected from evil, pain, and death due to spirits. This was conveyed through the following statement:

“I used oil, water (drinking water that has been prayed for). Besides, I also put the chewed coconut on the mother's head. I gave ginger at early pregnancy so that her uterus did not fall when the mother walked far away. At the late pregnancy (TM III pregnancy), we used halia so that the baby was born quickly”. (In-depth Interview, TBA4)

“I also used *jengok* root to exorcise demons, so that pregnant women and the infants were not threatened by evil spirits because they smelled strong”. (In-depth interview, TBA5)

Problems Occurred due to “Abdominal Massage”

Maternal and fetal mortality was a problem

that might occur when performing “abdominal massage”. Based on the interview results of this study, there were no deaths, either the mother or the fetus, as a result of doing abdominal massage with traditional birth attendant. This was conveyed through the following statements:

“As long as I help the mother and baby, none of them will die. There was an incidence. The umbilical cord ruptured during delivery. I was scared for a while, but I continued to help the baby. Luckily, God still helped so all was well”. (In-depth interview, TBA1, TBA2).

The next informant (TM) as a public figure explained that no family to date had complained or reported about the TBA's service while performing abdominal massage in their places. The information above is in line with statements from informants M1, M2 as midwives. There were only one maternal death and four infant deaths from 2018 to 2020, but these incidents were not related to abdominal massage techniques performed by traditional birth attendants.

From 2018 to date, there has only been one maternal death. It was also because the mother was actually ready to give birth at the first visit. She came from Kalimantan, she worked there and we didn't know. Regarding infants death, it was all because of the IUFD. Well, the women here worked as farmers, so they went to the fields every day, lift heavy rice, and keep resting there, and they forgot time to break so that their fetus died and it had no relation with a traditional birth attendant. (In-depth interview, MI, M2)

KK, as the informant, the head of the community health center in charge, explained that before the partnership training of traditional birth attendants and midwives were intensively carried out in 2018, there were still many traditional birth attendants who had childbirth assistance. In 2017, 3 maternal deaths due to traditional birth

attendants.

Before 2018, there were maternal and infants death occurred each year both assisted by traditional birth attendants or health personnel. In 2017, 3 mothers who died after delivery at traditional birth attendants. After 2018, there were no more deaths performed by TBAs. In 2019, there were still mothers who gave birth at TBA. We always told the TBA to not to do this too hard especially during the first trimester because it might be susceptible to miscarriage. We also forbid, do not massage anymore, but people already believed and they were close to them. Yes, we work hard, health personnel. (In-depth interview, KK)

“Abdominal Massage” costs

The cost was one of the factors that determined pregnant women or woman in labor choosing a traditional birth attendant as a birth attendant. Nowadays, pregnancy check-up was free and delivery was charged by BPJS or Jampersal (Social Insurance for Delivery). However, costs outside the cost of delivery were still a problem, such as costs to the poskesdes (village health post), pustu (secondary community health center), and puskesmas (community health center). No cost of “abdominal massage” was a main factor for mothers to entrust their pregnancy and delivery to traditional birth attendants.

“I never asked them for money. They were sick because they wanted to give birth, then sick again because of money. It depends on them, how much they want to give”. (In-depth interview, TBA2)

“I am willing to help, what time they call, at 12 or 1 a.m. I'll go there. If they just want to give money, it depends on them. I don't give any price or ask”. (In-depth interview, D4)

Mothers who had pregnancy check-ups and had abnormalities position such as breech and transverse location were advised by midwives to check it up at a gynecologist,

which was only available in Manggarai Regency. It took about more than 5 hours. According to their opinion, it spent a lot of money, such as transportation costs, lodging, food and drink, and doctor services. Therefore, TBA was the choice of pregnant women in changing the fetus position in the womb.

“The legs position was below, I went to the midwife then she told me to make movements to change the position. Then I went there again, but still the same (fetal position). They told me to go to the doctor in Ruteng (the capital city of Manggarai Regency), but I thought of lots of things, like where should I eat, what transportation should I use, where to sleep. Then I had to pay the doctor, where did I get the money? It was expensive to go to the doctor. So I went to Ende, she also had lots of experiences”. (WL2, WL3).

DISCUSSION

“Abdominal Massage” Technique

Massaging the stomach in Manggarai was called “abdominal massage”. This technique was a hereditary skill. It was obtained from the ancestors of the traditional birth attendants (TBAs). People believed that TBA had the power, charisma, special authority in performing abdominal massage.

Abdominal massage is still practiced by the people of East Manggarai to date, especially pregnant women and women in labor. Abdominal massage practice performed by TBA was more often used during pregnancy than after delivery. According to the local people's beliefs, this was very useful for knowing and adjusting the fetus position. The mother would feel strong, the baby would be healthy, the maternal body could move easily after massaging. It also helped the process of lowering the fetal head. At an early pregnancy or one-month pregnancy, many mothers had an abdominal massage. It aimed to make the uterus was strong and the embryo was

gathered together. Abdominal massage at four months of age or late in pregnancy aimed to change the fetus position, both breech and transverse position. It also reduced pain during delivery. In addition, abdominal massage during delivery aimed to make the fetal head lower down faster so that the delivery did not take a long time. This factor was the reason why people from generation to generation chose traditional birth attendant as a birth attendant. People's understanding was not in line with the world of health. This was affected by the low level of education, the people's perception of the TBA who was considered more capable, fast, and a hereditary culture (Nurhidayanti et al, 2018).

The first step performed by the TBA when assisting in delivery was washing hands. The TBA waited for bleeding and fluid came out from the birth canal afterwards. Furthermore, the TBA would give drink that has been given a magic spell. After that, the stomach was massaged to make the fetal head go down faster (Nanur, 2016),

The result of a study conducted by Gedamu et al (2016) proved that almost 30% of women in Ethiopia had abdominal massages during pregnancy and around 90% did it at home assisted by a traditional birth attendant. The wrong practice of abdominal massage during pregnancy or delivery contributed to maternal and fetal mortality.

Abdominal massage practice to relieve back pain and change fetal position was mostly performed by unskilled traditional birth attendants. In the same way, such cultural practices could be accompanied by various complications causing permanent damage to the maternal and fetus body and even death. The risk of maternal death in developing countries was greater than in developed countries. It occurred because the people trust in traditional birth attendant to do abdominal massage during pregnancy and delivery was still high (Tola & Tadesse, 2015).

Based on a study conducted by Field in 2010, massage therapy that was not on the abdominal area in pregnant women and carried out by experts proven to be effective in reducing anxiety before delivery. Besides, the time needed to give birth was around 3 hours.

Scientifically, abdominal massage has not been proven beneficial. It was prohibited in the medical world because those who did it might not have much knowledge of human anatomy and the physiology of pregnancy. This practice affected morbidity and mortality for both the mother and the fetus if it was carried out far from adequate health care facilities (Prastiwi et al, 2016).

Ingredients Used in “Abdominal Massage”

Traditional ingredients used in abdominal massage were still untested. During pregnancy, a pregnant woman would be massaged both at the beginning to the end of pregnancy. Oil rubbed on her stomach was used to change the position of the fetus and speeding up the lowering process of the head. The oil was not dangerous for maternal and fetus health, but the massage technique had a significant effect. Another habit that also occurred was that pregnant women were obliged to use pins that have been embedded with garlic and jengok roots. It was believed to be effective in chasing away dangerous spirits during pregnancy.

In addition, various traditional medicines such as drinks taken during pregnancy were believed to have a good effect on maternal and fetus health. Medicines or ingredients used both inside and outside the body brought freshness and health, thus making pregnant women did hard and dangerous work until the end of pregnancy.

Ingredients that were simple, easy to reach, no costs, were the reason many pregnant mothers and women in labor chose traditional birth attendants as birth attendants.

The mother and the family had to prepare unexpected additional costs for the need to buy medicine when having delivery with a midwife or at a health care facility. This is in line with a study conducted by Kitula (2007), that traditional medicines provided by traditional birth attendants were easier to access at low costs.

In the second stage of normal delivery, the vulva and perineum from the front to back were cleaned using DTT cotton. It aimed to prevent infection before the baby was born and prevent tears occurred (Ministry of Health, 2014). This was not in line with delivery performed by a traditional birth attendant. The TBA used a combination of oil and herbs to apply the maternal "vaginal orifice" before delivery in order to make the delivery faster. Those ingredients would have negative effects such as infection if there was a tear in the birth canal. This study is in line with a study conducted by Sanjaya et al (2016) that postpartum mothers were given a combination of manurun banana leaves that had been crushed and applied to birth canal wounds.

Almost some Asian women still believe on traditional massage practices during pregnancy, deliver, and the puerperium. The practice of abdominal massage was carried out by traditional birth attendants using traditional medicines that have not been confirmed safe for mothers and babies (Withers et al, 2017).

Problems occurred due to “Abdominal Massage”

The incidence of maternal and fetus morbidity and mortality was a problem that occurred due to the implementation of traditional abdominal massage techniques by traditional birth attendants. Before 2018, there were maternal and fetal deaths occurred every day in the Mamba Community Health Center. The highest number occurred in

2017. There were 3 maternal mortality cases performed by traditional birth attendants.

Abdominal massage techniques were still carried out during pregnancy and delivery even though there were a midwife and traditional birth attendant program. People who believed and felt close to the TBA were the main factors that made the TBA was still entrusted with to take care of pregnancy and delivery. From 2018 to 2020, there were no maternal and fetal mortality due to abdominal massage. There was one maternal mortality that was too late discovered by health personnel because she did not live in the community health center are. In addition, there were four fetal mortality due to IUFD (Intrauterine Fetal Death) which were deaths of unborn babies.

There were several reasons why mothers chose to do abdominal massage: stomachache, habits or traditions from family and around that abdominal massage should be done, suggestions from friends and relatives, benefits obtained, easy and quick pregnancy time, and it could change the fetus position. However, abdominal massage could cause abortion, ectopic pregnancy, placental abruption, placenta previa, hemorrhage during pregnancy, preterm labor, tears in the uterine wall, and IUFD (Adokiye et al, 2016). The long-term consequences that might occur were pelvic inflammatory disease (PID), infertility, uterine prolapse, pain during sexual intercourse, urinary and fecal incontinence, and uterine prolapse (Tola & Tadesse, 2015).

Based on this study, there were deliveries performed by traditional birth attendants. Some of them had broken umbilical cord in newborns. The risk of maternal death in developed countries was forty times higher than in developing countries. Mortality was caused by hemorrhage, prolonged labor, pre-eclampsia, sepsis, and about 80% due to deli-

very at home and assisted by traditional birth attendant (Tola & Tadesse, 2015).

“Abdominal Massage” Costs

This study explained that TBA who did abdominal massage did not charge any fees to mothers and their families. Pregnancy check-up at midwives needed transportation costs if the health care facility or the midwife's residence was far from home. Mothers were also suggested to check with doctors in a different regency from where the mother lived. This was an economic burden for mothers and families. Visiting a TBA was an alternative or the main choice. It was cheap. Besides, the TBA was also considered careful, friendly, and patient so that mothers and families feel safe and comfortable doing abdominal massage.

Based on a study conducted by Nurhayati & Sugiharto (2019), mothers preferred traditional birth attendants as birth attendants because they were close to home so that they did not need to spend money. In addition, the family was free to pay at any cost without coercion.

There was a positive side of mothers and their families choosing a TBA to help the delivery process because the TBA did not decide how much the family of pregnant women and women in labor should pay. The TBA also arrived quickly. In addition, traditional birth attendants were patient, experienced, and had much time to accompany mothers from delivery to the postpartum period (Nurhidayanti et al, 2018).

AUTHOR CONTRIBUTION

Maria Sriana Banul and Silfia Angela N. Halu collected the information by in-depth interview, extract the information, and wrote the paper.

CONFLICT OF INTEREST

None.

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