DO WOMEN IN RURAL AREAS STILL PREFER HOMEBIRTH WITH TRADITIONAL BIRTH ATTENDANTS? A QUALITATIVE STUDY OF WOMEN IN RURAL AREA OF KUTAI KERTANEGARA EAST KALIMANTAN

Annisa Nurrachmawati1*, Moh. Hakimi2, Adi Utarini3

1Department of Biostatistics, Population and Reproductive Health, Faculty of Public Health, Mulawarman University
2Department of Obstetrics and Gynecology, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada
3Department of Health Policy and Management, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada

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*Correspondence:
Annisa Nurrachmawati
Jl.Sambaliung, Kampus Unmul Gunung Kelua Samarinda
Phone/HP: 082154409470
E-mail: nasywa_mzi@yahoo.com

ABSTRACT

Background: There continues to be a gap between facility-based delivery and homebirth. This condition is influenced by various social and cultural factors, which in rural areas could affect childbirth in health facilities.

Objective: This study aimed to explore whether there has been a shift from homebirth to facility-based delivery and what factors are associated with the phenomenon.

Method: A qualitative longitudinal research with ethnographic study design was conducted in the working area of Muara Kaman Health Center in Kutai Kertanegara District, East Kalimantan. The data were collected using in-depth interviews of 17 pregnant women as informants who were followed from the first or second trimester of pregnancy until delivery, and interviews with four midwives. Data were analyzed with thematic analysis.

Results: Nine of the 17 women gave birth at the health facility, while there were still three who had homebirth assisted by traditional birth attendants. The number of women who performed deliveries at health facilities was increased from five in the previous pregnancy to nine in the current pregnancy during study. Women’s autonomy and risk awareness were considered as enablers for delivery at health facilities, while perception of homebirth as appropriate for normal labor, unnecessary planning of place and birth attendants, and less optimum partnership between midwife and traditional birth attendants hindered facility-based delivery.

Conclusion: Our findings suggest that the shift from homebirth to facility-based delivery has been slow. Efforts to minimize the barriers and improve supportive environment for women to deliver at health facilities should be strengthened.

Keywords: facility-based delivery, homebirth, women autonomy, traditional birth attendant

INTRODUCTION

Globally, it is estimated that 10.7 million women died from complications related to pregnancy and childbirth between 1990 and 2015 (Alkema et al., 2016). Most maternal deaths and birth complications in low- and middle-income countries are caused by health problems, which largely can be prevented (Unicef, 2014). If women have access to emergency obstetric care under the supervision of skilled birth attendants then maternal
mortality can usually be avoided. Globally, interventions to reduce maternal mortality rate (MMR) have decreased from 385 deaths per 100,000 births in 1990 to 216 in 2015 (Alkema et al., 2016). However, there is still a gap between skilled birth attendants (SBA) coverage in developed and developing countries, which may also occur between regions within a country (Graham, Bell, & Bullough, 2001).

Demographic and health surveys in 48 developing countries (2003-2011) found that in Sub-Saharan Africa, South Asia, and Southeast Asia more than 70% of deliveries took place at home (Montagu, 2011). In Indonesia, the target of 100% of deliveries assisted by SBA has not been achieved. Data from the Basic Health Research (Riskesdas) in 2013 showed that 33.3% of births were performed outside of health facilities, 12.9% of deliveries were not assisted by SBA and 10.9% of deliveries were still assisted by traditional birth attendants (TBAs) (Penelitian & Kesehatan, 2013). The number of maternal deaths in East Kalimantan has decreased from 100 (2015) to 95 deaths (2016), but in Kabupaten Kutai Kertanegara, there has been an increase from 29 (2015) to 32 (2016), the highest maternal mortality in East Kalimantan (2016) with 15.2% of deliveries not assisted by SBA (Istiyana, 2016).

Various interventions have been implemented to reduce maternal mortality. In 1987 the Safe Motherhood Initiative (SMI) movement was globally launched, and in Indonesia the Safe Motherhood Movement (Gerakan Sayang Ibu) has been started since 1988 (Penelitian & Kesehatan, 2013). Midwives were deployed and TBAs were trained in every village, followed by the Desa Siaga program in 2006. Subsequently in 2008 community participation was re-activated through the Birth Planning and Complication Readiness Program. A special insurance scheme called Jampersal was introduced since 2011 to lessen the financial barriers (Kesehatan, 2011).

Despite many efforts in developing countries, a high proportion of deaths continue to occur at home in unhygienic conditions without presence of SBA and the necessary infrastructure for referral if complications arise (Dogba & Fournier, 2009). Various factors are related to preference for homebirths, such as lower cost, geographical barriers to access health facilities, and low status of women in the family in India and Laos (King, Jackson, Dietsch, & Hailemariam, 2015). Likewise, women in Indonesia also prefer home delivery assisted by TBAs for normal delivery (La Ode & Asfian, 2016; Titaley, Hunter, Dibley, & Heywood, 2010).

Cultural and social factors such as tradition, gender and social structure of decision making are important and may hinder delivery at health facilities, both for normal delivery and when complications occur (I. Jansen, 2006). In Indonesia, despite availability of village midwife and insurance scheme for birth, a study in 12 districts indicated that many mothers are still unaware of the need for safe delivery in health facilities (Handayani, Suharmiati, Kurniawan, Nuraini, & Wasito, 2014). Therefore, a qualitative research is still needed to deeply understand these socio-economic and cultural factors surrounding childbirth. This study aimed to explore whether there has been a shift from homebirth to delivery in health facilities and reasons associated with the phenomenon.

**METHODS**

**Study design**

This qualitative ethnography study was carried out in the village of Muara Kaman Ulu and Muara Kaman Ilir, Kutai Kertanegara, i.e. the working area of Muara Kaman Health Center. In these two villages the majority of the population is Kutai tribe who mostly understand and speak Indonesian. This study is part of a qualitative longitudinal study that aimed at exploring patterns and dynamics in decision-making about places and birth attendants. This paper focuses on the shift from homebirth to health facility-based
delivery and its enabling and inhibiting factors from women's own perspective. The main author works in a university setting, focusing on maternal and child health, is familiar with Kutai culture and language although not fluent. Data collection was assisted by one female research assistant with a public health background, fluent in using the local language. The research assistant is familiar with the study purpose and methods. In-depth interviews were conducted by the main author, with assistance in writing the transcripts and documentation.

Population and sampling
Pregnant women of Kutai tribe in the first or second trimester were included in the study. A purpose, intensity sampling was applied to select those who have homebirth experience assisted by TBAs, SBAs or had a history of delivery at health facilities.

Data collection method
In-depth interviews were held at least three times, in each trimester of pregnancy until postpartum during the period of April 2015 to April 2016. Twenty pregnant women were initially interviewed, but three women were then excluded due to miscarriage, premature birth and moving out of the village. Both Indonesian and local languages were used. Each interview lasted between 30-90 minutes and conducted at home. Interview questions include history of previous labor, place and birth attendants of previous and current pregnancy during the study, decision-making process and various reasons behind women's choice of place and birth attendants. To enrich the information from the women, four midwives were also interviewed to obtain a better understanding and for triangulation purpose to increase data validity. Saturation was achieved after 17 informants, through continuous discussion between the authors.

Data analysis
Data analysis was carried out simultaneously from the beginning of data collection, and transcripts were made available for all interviews. Coding was carried out by the main author, and selected transcripts were coded by the last author as an attempt to improve reliability during coding. A thematic analysis method was applied to identify women’s experiences, meanings and realities as well as to come up with the main topics of discourse to produce the themes.

Ethical approval
This study obtained ethical clearance from the Medical and Health Research Ethics Committee, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia. At the beginning of the interview, all informants received information regarding purpose of the study. They have agreed to be interviewed more than once in the study and gave permission to record the interview.

RESULTS
A total of 17 pregnant women aged 19-37 years were interviewed, and all of them were Muslim. Three informants worked as teachers at various levels of education located in Muara Kaman sub-district and other informants were housewives. The last education successfully completed by most informants was junior high school. Of the 17 pregnant women, there were 15 multiparous pregnant women and two primigravida pregnant women. One informant had high risk of pregnancy with age over 35 years and two were already pregnant at the age of 19 years.
Thematic analysis highlighted a shifting phenomenon from homebirth to facility-based delivery, enablers and barriers toward delivery at health facilities. Awareness of homebirth risk, positive attitudes toward facility-based delivery, and women autonomy in decision making were the categories found as enablers for delivery at the health facilities, while perception surrounding birth, preference for homebirth and lack of partnership between the midwife and TBA were considered as barriers.

**A shift in choice of place and birth attendant**

We observed a slight shift from homebirth assisted by TBAs to delivery at health facilities (Table 1). An increase in the number of women with deliveries at health facilities was observed from five women in the last pregnancy to nine women in the current pregnancy during the study. This was nearly equal to the number of women who had homebirth (eight women). Two women consistently gave birth at health facility outside Muara Kaman village. Three deliveries took place at home assisted by TBAs only. Two of these three women initially planned the delivery at the health facility, but because the delivery took place at night and they were delayed in taking action despite the sign of delivery, they remain assisted by TBAs with the midwife visiting them in the next day. The shift were more prominent in the choice of birth attendant, of which 14 out of 17 deliveries were currently assisted by SBAs, i.e. midwife.

<table>
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<th>Informant code</th>
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**Enabling Factors to Shift from Home Birth to Facility-based Delivery**

We identified the following factors that support changes from homebirth to facility-based delivery, i.e. midwife as trusted source of information, understanding positive values by having the delivery at health facilities, awareness of the risks that could occur during childbirth and act according to their own vigilance. Women who give birth at home assisted by SBAs or at health facilities have good autonomy in decision making.
and were supported by their spouses and families to make their own decisions.

Younger age and primiparous women often preferred to give birth assisted by midwife. They tend to adhere to advice given by the midwife.

"Right now I realize that primipara women are more often to listen to midwife, unlike the older multipara women who still prefer to have homebirth assisted by TBAs" (midwife 2, 27 years).

This shift is certainly supported by easy access to Muara Kaman Health Center, which is located between the two villages, i.e. Muara Kaman Ulu and Ilir. The Health Center was situated in close proximity to the residential area, i.e. only 3-5 km away. Antenatal care was available at the community health post (Posyandu) and there are three community health posts, one in Muara Kaman Ulu village and two in Muara Kaman Ilir village. In addition to these public health facilities, women can also seek care at the midwife private practice. Four health centre midwives had their private practice at home which opened in the afternoon. While all midwife private practice provide antenatal care, family planning and willing to assist homebirth, only one midwife provides birth facility in the private practice.

Another reason to support delivery at health facility was safety. Women who delivered at health facility believed that hospital has complete facilities, sterile equipment, effective labor management and skilled health workers. These made the women feel safe.

"Yes I think the hospital has complete [facilities], the facilities are better there" (women 5, 33 years).

Health facilities were also selected because the women were aware that childbirth is also an event that may pose a risk. This reality encourages the mother to fear giving birth at home assisted only by the TBAs.

"I fear if I giving birth with TBAs and if there is an emergency, she can’t do anything. But if I deliver at the hospital, they can handle it." (women12, 29 years old)

The quotation also shows that women are more confident with the health care services compared to TBAs. In choosing place of delivery, women also consider their health condition during pregnancy and advice from the midwife.

"When I checked my hemoglobin level, the midwife told me if I had anemia I have to deliver at the hospital because I may need blood transfusion" (women 1, 32 years old)

In addition to knowledge and awareness, women also seem to have the autonomy in making decision regarding place of delivery and birth attendants. In a patriarchal society, the spouse who is the head of the family play a significant role in making decisions of all aspects in life. Slightly different from that norm, is the decision related to health. The choice of place of delivery and the birth attendants were shown to be given to the women in order to make them feel comfortable, and because it is believed that women know their health condition better.

"My husband said it’s up to me if I want to deliver at the hospital; the important thing is safety first " (women11, 27 years).

Women also have the freedom to travel or do activities outside the house, and manage financial arrangement for daily life, child education, and health including preparation for costs to give birth.

At the time of data collection, insurance scheme for antenatal care in Posyandu and
delivery at government health facilities has been covered using the district government health insurance (Jamkesda) from Kutai Kertanegara. Jamkesda has been implemented since 2009 and is intended for all residents in the Kutai Kertanegara regency who does not have other health insurances. Nevertheless, only three out of nine women who gave birth in health facilities used Jamkesda, and the remaining six women who delivered at midwife private practice paid with out-of-pocket payment. Although women are aware that delivery at the health center was free, but they preferred to deliver at midwife private practice because they did antenatal care with the midwife.

Even though women have autonomy to make their own decisions, not all women choose to deliver at a health facility. As an illustration, one woman insisted on giving birth at home assisted by TBA, but this decision was not supported by the family who believes that to ensure safety for both the mother and baby during home delivery, it should be assisted by a midwife. This situation suggests that decisions determined by others are not necessarily detrimental to the health of the mother, if the family is aware that every delivery should be assisted by SBA to ensure health of the mother and newborn baby.

**Barriers to give birth at health facility**

Three common reasons appeared to hinder delivery at health facilities. These are: cultural barriers related to beliefs that delivery at the health facilities is only appropriate for abnormal delivery; perception that planning the delivery will only create complications for the women and the family; and partnership between midwife and TBAs was not optimum yet. Specifically for hospital, long distances and poor condition of road heading to hospitals outside the village created unsafe and uncomfortable situation for the women. The main inhibiting factor is still a strong preference for home birth. The majority of women in Muara Kaman perceived that birth is a natural and normal phenomenon; therefore if the women are in good health, homebirth is the first choice. Women would go to the health facilities only when there is a problem. Even some women still insist on having homebirth when different views on place of birth occurred between women and the spouses. Although the spouse wanted to have the delivery at the health facility, but the final decision was returned to the women.

"My husband wishes to take me to deliver at the health facility. He fears something bad could happen if I don’t want to but I prefer homebirth" (women 13, 19 years).

Another strong reason for home birth is sense of comfort with the presence and support from the family. In Muara Kaman, there is a habit for the family and close neighborhood to accompany women who will give birth. This practice keeps the women comfortable during labor, by receiving care and having support from the family. In a health centre with limited space in the delivery room, only the spouse or parent could accompany during the delivery process. This makes women reluctant to choose health center as a place of birth, as stated below.

"In the health center here, family couldn’t enter the delivery room, it is usually only possible to visit during the visitor time” (woman 4, 34 years)

Perception on planning a delivery at a health facility is considered to be similar to asking for problems during labor. If it has been planned to give birth in a certain place assisted by a person, then it is believed that the baby will only be born in that place and attended by the person as planned. Therefore, delivery planning was
considered to complicate the women themselves, leading to fear to plan the place of delivery and birth attendant. This perception is deeply believed among pregnant women because the information is passed from generation onto the next generation.

"My father told me not to intend to plan the delivery at the hospital; hopefully I have a normal delivery at home. I don’t want to have a surgery" (woman13, 19 years old).

Although women accept that midwife is the trusted source of information and safe delivery takes place at health facilities, nevertheless they are not able to get out from their comfort zone of having the labor at home. Therefore, homebirth assisted by SBA is more acceptable as it is only considered as modifying (not changing) their local practices.

The presence of informants who made the decision for home birth puts the midwife in an awkward situation. The midwife knew that the delivery should take place at health facilities. However, if the women insisted on giving birth at home, this made them feel obliged to assist the delivery in order to prevent the childbirth from being assisted only by TBAs. Midwives are willing to assist the delivery at home given that women should be willing to be referred to the health center if complications arise.

“When a patient called you to assist homebirth, we first asked them to go to the health centre. If they refused, still we can’t ignore them or else they would ask for TBAs to help them. That’s why I assisted them under the condition that if problems arise, they should obey me when I referred them to a health center” (midwife 1, 35 years)

In pregnancy classes, midwives provide information on danger signs that may occur during pregnancy and childbirth. Midwives also encourage women to give birth at Puskesmas. Although women seemed to understand and agree, nevertheless, in reality this is not sufficient to completely change the preference of having homebirth assisted by the TBAs only.

"There is often a pregnancy class for example in the Posyandu, where they had been told about the danger sign, but homebirth with TBAs is part of the tradition, so they didn’t consider about it." (midwife 3, 24 years old)

There are six TBAs in Muara Kaman Ulu and Ilir villages, with four TBAs who are still actively assisting delivery while the other two are already very senior and thus only occasionally assist delivery among their families. Out of four active TBAs, three of them have been working in partnership with a midwife because they did not want to assist home birth alone without the presence of a midwife. They even encourage the women to give birth at a health facility and are willing to accompany the women until the baby is born. One TBA who refused to work with a midwife only calls the midwife when
there is a problem. If the TBAs have agreed to assist the delivery without the presence of a midwife, most people who did not understand would immediately take it for granted.

“Her husband said that he indeed wants to call a midwife, but this was prohibited by the TBA who convince him that she could assist the delivery by herself” (midwife 1, 25 years)

Decision for home birth assisted by TBA was sometimes also made by others (spouse or parent), despite women’s intention to give birth at health facility.

"In the counseling, we [the midwife] asked the women who would be their birth attendant and if they still want to give birth with the TBAs, given that they have already been informed about the complications and danger sign. After counseling, some mother would want to have the delivery with SBA but sometimes it is the family who didn’t want it, either the mother-in-law, her own mother or husband, they influenced each other.” (midwife 2, 27 years old)

DISCUSSION

This study provides a deeper insight in a rural setting with strong cultural beliefs. We found that there has been a slight shift from homebirth to facility-based delivery in. Although homebirth is still common, many deliveries are already assisted by SBAs. This evidence supports the provincial data of East Kalimantan in 2016 that shows higher percentage of deliveries at health facilities or assisted by SBAs compared to the national figures, 81.1% vs 77.4%, respectively (Widodo, Amanah, Pandjaitan, & Susanto, 2017). Similarly, the finding is also consistent with the global pattern from the Demographic Health Surveys and the Multiple Indicator Cluster Surveys (in 80 low and middle income countries), which shows that in some developing countries there has been a shift in support of deliveries at health facilities rather than homebirth (Johnson, Padmadas, & Matthews, 2013).

One enabling factor for the delivery at health facility is women’s autonomy in decision-making. This is in line with a study in Pakistan (Hou & Ma, 2012) that demonstrates Pakistanis women who have the power to make their own decisions is positively correlated with the utilization of maternal health services. (C. Jansen, Codjia, Cometto, Yansané, & Dieleman, 2014) reported a similar finding.

Sufficient knowledge and women’s awareness about the risks and complications that may occur during childbirth as well as a growing beliefs that skilled birth attendant such as midwife and a complete health facilities to ensure safety of both the mother and newborn are found to empower women to make the decision of place of birth and birth attendant. A study in Uganda also revealed the influence of risk perceptions of pregnancy and childbirth in the community toward health care utilization (Atekyereza & Mubiru, 2014). Increased women’s attention to pregnancy complications and skills of midwife in dealing with such complications will encourage delivery at health facilities (Titaley et al., 2010).

Reluctance to plan the place of delivery and birth attendant was expressed due to the belief that this would be considered as expecting problems in childbirth and only complicates mothers and their families. This fear becomes an important context for this community to emphasize the acceptance and strengthen the practice of midwife-assisted homebirth during childbirth. However, the role of TBAs is still culturally respected by the Kutai community whose existence could not be
ignored. Therefore finding the best strategy for the culture and modern medicine to meet in a partnership between midwives and TBAs is the key to improve the collaboration. An alternative new role for TBAs is their involvement in the implementation of Birth Planning Program and Complication Prevention. This program is an activity facilitated by midwife in order to empower the husband, family and community in planning safe delivery and prevention of complications in pregnant women. As TBA is well respected in the community, they could motivate the women and to support facility-based delivery through increased knowledge and practice of delivery planning. Another strategy to engage TBAs is to place TBAs as a community-level network for the delivery referral at the health facility (Crissman et al., 2013).

Finally this study showed that there were still families that support homebirth with TBAs only, while studies have shown that in areas of low maternal mortality, 99.2% of mothers had performed safe deliveries at health facilities (Widodo et al., 2017). This condition again highlights the importance of encouraging support from the family and spouse for women to deliver at health facilities. As (Shimazaki, Honda, Dulnuan, Chunanon, & Matsuyama, 2013) stated, safe delivery behavior is influenced by social support for healthy behavior, and high maternal social values for the family. Furthermore, since women who participate in birth planning have less complications during pregnancy and childbirth (Werdiyanthi, Mulyadi, & Karundeng, 2017), health education about the importance of birth planning and complication prevention program targeted to the pregnant women and their families should continuously be strengthened using culturally acceptable strategies.

CONCLUSION

In rural areas with a strong cultural belief, there has been a shift from homebirth to delivery at health facilities. However, practice of homebirth as assisted by TBAs only is still present, indicating improvements are continuously required. The role of TBAs remains important for the women and community, and therefore it is necessary to increase opportunities to engage TBAs in a more culturally acceptable partnership with the SBAs. Better partnerships, would hence accelerate the transition from homebirth to facility-based delivery.

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