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Research Article

Factors Associated with Use of Traditional Birth Attendants for Child Delivery: A Cross-Sectional Study

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ABSTRACT

Background: Even though the use of skilled birth attendants at birth reduces the risk of maternal mortality and associated complications, some pregnant women prefer to use either traditional birth attendants (TBAs) or deliver at home. Although the use of assisted delivery was reduced between 2014 and 2016 in North Tongu, the rate of TBA use among pregnant women in the district was increasing. There is, therefore, the need to establish the reason for this increase in TBA use. We conducted a study to assess factors that influence the use of TBAs in the North Tongu district. **Methods:** A retrospective cross-sectional facility-based survey was conducted among 449 women who delivered within the past 12 months and were accessing postnatal care services in the North Tongu district. A simple random sampling method was used to select women who attend child welfare clinics. Bivariate and multivariate analyses were conducted to determine the factors that were significantly associated with use of TBAs. All statistical analyses were done at a 95% confidence level with statistical significance at $p \leq 0.05$. **Results:** The mean age of the respondents was 27.0 years ± 6.2 SD. The prevalence of use of TBA during childbirth among women was 26.5%. Factors that significantly influenced use of TBAs during childbirth were age, religion, educational status, and parity. Other significant factors included several antenatal care visits and the attitude of health workers toward pregnant women. **Conclusion:** Use of TBA services at birth in the study district remains relatively high. Women who use antenatal and postnatal care services should be educated on the importance of skilled delivery. There is also a need to equip TBAs and reposition them as link agents to facilitate referrals of pregnant women to health facilities where there is a need for additional birth attendants.

Keywords: associated factors, child delivery, North Tongu district, reproductive age, traditional birth attendants, utilization, women

INTRODUCTION

Maternal mortality is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management, but not from accidental or incidental causes.[1,2] Almost all maternal-related deaths (95%) occur in low-income and lower-middle-income nations, with nearly two-thirds (65%) occurring in the region of Africa.[2] Global assessments on maternal mortalities have shown that most maternal deaths can be averted if appropriate measures are taken and at the right time.[3] If women who are the end users of maternal healthcare services can make the right choice and make the right decision at the right time, limited cases of maternal complications that result in deaths can be achieved. Using skilled assistance at birth is a critical indicator in measuring maternal health-related Sustainable Development Goals because it reduces maternal morbidities and mortalities.[4]

Although use of skilled birth attendants (SBAs) at birth reduces the risk of maternal mortality and associated

complications, some pregnant women prefer to use either traditional birth attendants (TBAs) or deliver at home.[5] Although access to SBAs at birth in high-income countries is more than 90%, use of the same in Africa is below 50%.[6] A global analysis of SBA use in 2019 showed that nearly 100% of all deliveries in high-income areas are attended by an SBA. However, in sub-Saharan Africa, fewer than 10% of the countries have a skilled delivery rate exceeding 50%. In comparison, more than a quarter of the countries have SBA rates lower than 20%.[7]

In Ghana, the rate of SBA use increased marginally between 2007 and 2017 from 55% to 79%, with rural SBA utilization rate at 69%.[8] Efforts to ensure increased use of skilled delivery have stagnated.[9] Skilled delivery in North Tongu fluctuates over time, with a reduced utilization rate. In 2013, for instance, the district recorded a skilled delivery utilization rate of 74.1% but witnessed a consistent decline to 64.9% in 2014 and 58.2% in 2016.[10] On average, the utilization rate of skilled delivery was reduced by more than 15% over the 4 years. Even though the skilled delivery rate increased from 58.2% in 2016 to 65.8% in 2019, the utilization rate has consistently remained low..[10] Although the use of assisted delivery was reduced between 2014 and 2016, the rate of TBA use among pregnant women in the district increased from 6.0% in 2013 to 11.1% in 2016.[11] Despite the marginal increase in the TBA utilization rate, it is evident that the actual use may be significantly higher because this estimation by the health service did not capture community systems but only reported cases of referrals to the facility. As the rate of TBA use at birth increased marginally between 2013 and 2016, the rate of maternal deaths in the district also increased from 263 maternal deaths per 100,000 live births in 2013 to 412 maternal deaths per 100,000 live births in 2016.[11] It is, therefore, essential to determine the prevalence of TBA use in the community/general population.

An increase in TBA use has a ripple effect on delivery complications. Women's decisions to use the services of TBAs are primarily influenced by several factors that may not be readily known.[12–14] The Ghana Health Service within the district has raised concerns over the increasing rate of TBA use. Unfortunately, there is limited or no knowledge of the factors contributing to the steady increase in TBA use. Policies and strategies to address the problem may be generalized; however, there must be specific interventions targeting the root cause. It is, therefore, essential to determine the factors contributing to the steady increase in TBA use in the district.

METHODS

Study Setting

The study was conducted in the North Tongu district in the Volta region of Ghana. It is located on the southeastern coast of Ghana. The district had 29 health facilities: one district hospital, one polyclinic, six health centers, 20 Community Health Planning and Services zones, and one private clinic. The district had a population of 112,190 with five administrative sub-districts: Battor, Juapong-Podoe, Fodzoku-Torgorme, Dorfor-Adidome Volo, and Mepe.

Study Design

A retrospective cross-sectional facility-based study design was conducted. Ethical clearance was obtained from the Ghana Health Service Ethics Review Committee (GHS-ERC: 051/08/21). Informed consent was obtained from all study participants. A quantitative research approach was used to help estimate the prevalence of TBA services use and determine the factors that significantly contribute to the use of TBAs at birth.

The study had two primary outcomes. The first outcome was determining the prevalence of TBA use among women in the North Tongu district. The second was to determine the factors contributing to use of TBA services in the district.

Study Population

The study participants were all women who delivered in Ghana between January and December 2020, were within 12 months of postpartum, and attended child welfare clinics in health facilities within the district. A total of 499 women were sampled for the study. The required sample size was calculated using the Cochran formula[14] for a single population and was based on the following assumptions: 95% confidence level at the standard value of 1.96, 5% margin of error, and 37.2% proportion of women who used the services of TBAs.[15]

Sampling Method

This study used a multi-stage sampling method. First, 10 facilities were randomly selected among the 29 health facilities. The child welfare registers in each selected facility were obtained and screened to identify women who met the inclusion criteria. A simple random sampling technique was used to sample participants proportionate to the size of the selected health facilities.

Data Analysis

The data were analyzed using STATA version 17.0. Descriptive analysis was appropriately presented in frequencies, percentages, and tables. Bivariate and multiple regression analyses examined the relationship between dependent variables (use of TBA services) and independent variables (demographic characteristics, sociocultural, maternal, and health service factors). Statistical significance was set at $p \leq 0.05$.

RESULTS

Sociodemographic Characteristics

Table 1 presents the sociodemographic characteristics. The mean ± SD age of the 449 women who participated in the study was 27.0 ± 6.2 years (range: 14–45). Of

Table 1. Sociodemographic characteristics of respondents ($N = 449$)

Variables	Frequency (*n*)	Percent (%)
Age, y (mean ± SD)	27.0 ± 6.2	
15–19	64	14.2
20–24	99	22.1
25–29	122	27.2
30–34	110	24.5
35+	54	12.0
Religion		
Christianity	300	66.8
Islam	99	22.0
Traditionalist	39	8.7
Others	11	2.5
Educational level		
No formal education	77	17.2
Primary	80	17.8
Junior high school/Middle school	107	23.8
Vocational	62	13.8
Secondary	69	15.4
Tertiary	54	12.0
Employment		
Housewife	133	29.6
Employed in the public/private sector	79	17.6
Self-employed	155	34.5
In school	37	8.2
Under training/apprenticeship	29	6.5
Other	16	3.6
Residence		
Rural	324	72.2
Urban	125	27.8
Marital status		
Single	83	18.5
Married	248	55.2
Divorced	6	1.3
Separated	20	4.4
Cohabitating	92	20.5
Type of marriage		
Monogamous	272	78.1
Polygamous	68	21.9
Partner's education status		
No formal education	82	18.3
Primary	34	7.6
Junior high school/Middle school	113	25.2
Vocational	49	10.9
Secondary	106	23.6
Tertiary	65	14.5
NHIS registrant		
NHIS registrant	408	90.9
NHIS non-registrant	41	9.1
Monthly income earning (GHS)		
<200	166	37.0
200–500	171	38.1
>500 and <1000	80	17.8
1000 +	32	7.1

NHIS: National Health Insurance Scheme; GHS: Ghanian Cedis.

the study participants, 300 (67%) were Christian, 77 (17.2%) had no formal education, 155 (34.5%) were self-employed, 324 (72.2%) resided in rural communities, 248 (55.2%) were married, and 60 (20.0%) were in a polygamous marriage. In addition, 41 (9.1%) of the women did not have health insurance, and 337 (75.1%) earned at most 500 Ghanian Cedis (GHS) per month.

Obstetric Characteristics

Results of the obstetric characteristics (Table 2) showed that 207 (46.1%) of the women had given birth to one child, 233 (51.9%) had multigravida, 46 (10.2%) never visited either a health worker or a TBA for antenatal care during their most recent pregnancy. A total of 242 (61.7%) could make at least four antenatal care (ANC) visits. Also, 124 (27.6%) deliveries took place at home. The prevalence of TBA use at childbirth was 26.5%. Also, 32% had used TBA services during childbirth at least once in the past, and 290 (72.3%) had TBAs in their communities. All participants who had skilled delivery were asked to provide some items; however, 99 (30%) of the women could not provide all the items listed for them. They were asked to provide a delivery mat, bedsheet (including rubber/polythene), antiseptic (including soap and Savlon), chamber pot, pampers, clothes, and pad. Other items included cot sheets, a baby cap and socks, a sponge and towel cup, and a spoon.

Sociocultural and Community Characteristics

Table 3 shows the results of the sociocultural and community-level characteristics of the respondents. Of the 449 study participants, 151 (34%) lived in communities that were more than 6 km away from the nearest health facility, 210 (46.8%) indicated that the decision on where to access maternal healthcare services was made together with their partners; 245 (54.6%) indicated that they did not know of any cultural practice in their community that promoted the use of TBAs at childbirth. Reasons for the use of TBA services for delivery included cheaper cost (30.3%), ease of accessibility (24.3%), cultural acceptability (18.9%), and caring/compassion (17.4%).

Factors Associated with the Use of TBAs

Table 4 shows that women aged 35+ years were more than five times likely to use the services of a TBA at childbirth compared with women aged 20–24 years (adjusted odds ratio [AOR] = 5.5, 95% CI: 1.5–20.7). Women who professed the Islamic faith were twice as likely to deliver with a TBA compared with women who were Christians (AOR = 2.4, 95% CI: 1.0–5.8). Similarly, women who were traditionalists were four times more likely to deliver with a TBA compared with those who were Christians (AOR = 4.5, 95% CI: 1.1–18.2).

Women who had no formal education were five times more likely to deliver with a TBA than those who had tertiary education (AOR = 5.4, 95% CI: 1.2–24.5), whereas women who had only primary education were six times more likely to deliver with a TBA than women who had tertiary education (AOR = 5.9, 95% CI: 1.2–27.9). Women with four or more births were about eight times more likely to deliver with a TBA than women with only one birth (AOR = 7.6, 95% CI: 1.8–32.6). Women who made

Table 2. Obstetric factors

Variables	Frequency (*n*)	Percent (%)
Parity		
One birth	207	46.1
Two births	137	30.5
Three births	69	15.4
Four or more births	36	8.0
Gravidity		
Primigravida	216	48.1
Multigravida	233	51.9
Number of ANC visits (*n* = 392; ANC only)		
<4 visits	88	22.5
4–7 visits	242	61.7
8+ visits	62	15.8
Gestation period ANC was initiated (*n* = 392; ANC only)		
First trimester	276	70.4
Second trimester	95	24.2
Third trimester	21	5.4
Attitude of ANC service provider (*n* = 392; ANC only)		
Friendly	367	93.6
Unfriendly	25	6.4
Place of delivery		
Health facility	325	72.4
Home	124	27.6
Delivery assisted by		
Midwife	280	62.4
Nurse	18	4.0
Medical doctor	32	7.1
TBA	119	26.5
Use of TBA services at the most recent birth		
TBA use at childbirth	119	26.5
Non-TBA service use at childbirth	330	73.5
Ever used TBA services (including records)		
Ever used TBA services during childbirth	143	31.8
Never used TBA services during childbirth	306	68.2
Ever heard about TBAs		
Heard of TBAs	401	89.3
Never heard of TBAs	48	10.7
Presence of TBA in the community (*n* = 401; only those who have heard of TBAs)		
There is a TBA in my community	290	72.3
No TBA in my community	111	27.7
Paid money for delivery at health facility (*n* = 325; only facility delivery)		
Paid money	272	83.7
Did not pay any money	53	16.3
Ability to provide all items before delivery (*n* = 325; only facility delivery)		
Provided all items	226	69.5
Could not provide all items	99	30.5

TBA: traditional birth attendant; ANC: antenatal care.

Table 3. Sociocultural and community characteristics

Variables	Frequency (*n*)	Percent (%)
Distance to nearest health facility		
<4 km	177	39.4
4–6 km	121	27.0
>6 km	151	33.6
A person who decides where to deliver		
Myself only	182	40.5
Together (couple)	210	46.8
Partner only	19	4.2
Other	38	8.5
Knows any cultural practice in the community supporting the use of traditional birth attendant (TBA)		
Yes	77	17.1
No	127	28.3
Don't know	245	54.6
Reasons for the use of TBAs		
TBAs are culturally accepted	85	18.9
TBAs are easy to access	109	24.3
TBAs are caring/compassionate	78	17.4
TBAs' services are cheaper	136	30.3
TBAs provide food to the pregnant woman	14	3.1
Others*	27	6.0

*Others included TBAs are within the community and are well known; they are people who are adults and have delivered before. TBAs allow us to squat rather than lie on our backs to deliver.

fewer than four antenatal care visits during pregnancy were about four times more likely to use the services of a TBA at childbirth than women who made at least eight antenatal care visits during pregnancy (AOR = 3.8, 95% CI: 1.1–12.7). For those who visited the health facilities for ANC services, women who had unfriendly experiences with health workers were four times more likely to deliver with a TBA than those who had friendly experiences at the health facility during their ANC visits.

DISCUSSION

The significant findings of this study were a high TBA utilization rate of 26.5% and its associated factors. Factors that significantly influenced use of TBAs during childbirth were age, religion, educational status, and parity. Other significant factors included the number of antenatal care visits and the attitude of health workers toward pregnant women.

Even though significant efforts in Ghana have been made to ensure the universal usage of SBAs as a measure of achieving Sustainable Development Goal 3 and reducing maternal mortality rate (MMR), use of TBAs persists in most communities.[16] In this study, use of TBAs at birth was observed to be higher than recent rates (20.5%) in the 2017 Ghana Maternal Health Survey.[17] However, a deeper review of the Ghana Maternal Health Survey report shows that the use of TBA in rural communities in Ghana was 31.5%. The urban utilization rate, however, was below 15%.[17]

Sociocultural and Community Characteristics

The Volta region has been identified as one of the regions with a higher TBA utilization rate.[17] Comparing the study findings with other studies showed that use of

Table 4. Multivariate regression analysis of factors associated with traditional birth attendant (TBA) service use at childbirth

Variables	Adjusted Odds Ratio	CI (95%)	*p* Value
Age, y			
15–19	1.6	0.5–5.4	0.434
20–24	ref	-	-
25–29	0.4	0.1–1.5	0.163
30–34	2.9	1.0–8.5	0.057
35+	5.5	1.5–20.7	0.012
Religion			
Christianity	ref	-	-
Islam	2.4	1.0–5.8	0.041
Traditionalist	4.5	1.1–18.2	0.034
Others	2.5	0.1–42.3	0.527
Educational level			
No formal education	5.4	1.2–24.5	0.027
Primary	5.9	1.2–27.9	0.025
Junior high school/Middle school	0.5	0.1–2.8	0.482
Vocational	1.0	0.2–5.6	0.996
Secondary	1.0	0.2–5.0	0.964
Tertiary	ref	-	-
Residence			
Rural	ref		
Urban	0.7	0.3–1.9	0.502
Marital status			
Single	1.1	0.3–3.8	0.831
Married	ref		
Divorced	0.7	0.02–19.1	0.842
Separated	0.8	0.1–5.1	0.856
Cohabitating	0.6	0.2–1.6	0.293
Partner's education status			
No formal education	0.7	0.2–3.1	0.680
Primary	0.7	0.1–3.9	0.709
Junior high school/Middle school	0.5	0.1–2.1	0.330
Vocational	1.0	0.2–5.1	0.979
Secondary	0.9	0.2–3.7	0.951
Tertiary	ref	-	-
Frequency of listening to radio			
Almost every day	ref		
At least once a week	1.3	0.6–3.0	0.460
Not at all	2.7	0.8–8.3	0.092
Parity			
One birth	ref	-	-
Two births	1.2	0.5–3.0	0.674
Three births	1.0	0.3–3.2	0.870
Four or more births	7.6	1.8–32.6	0.006
Number of ANC visits			
<4 visits	3.8	1.1–12.7	0.032
4–7 visits	0.9	0.3–2.8	0.938
8+ visits	ref	-	-
Received education on the importance of health facility delivery			
Yes, received education	ref	-	-
Did not receive any education	0.9	0.2–3.6	0.924
Attitude of ANC service provider			
Friendly	ref	-	-
Unfriendly	4.1	1.1–14.7	0.031

ANC: antenatal care.

TBAs at birth is relatively higher in the region. Significantly higher rates of 51.4% (urban) and 59.0% (rural), which was comparatively far higher than the observed rate in this study, were observed in a study in Northern Ghana.[18] Northern Ghana and the Volta regions of Ghana have been noted for their continued practices of cultural systems, including the use of TBAs for delivery.

A similar context has been noted for other West African countries like Nigeria, where different studies[19] have all shown significantly higher TBA utilization rates of more than 35%, with some reaching as high as 75% in rural Nigeria. A report by the Ministry of Health of Nigeria had earlier predicted that about 77% of rural women in Nigeria were more likely to use TBAs.[20] Ghana and Nigeria have been noted to depict similar characteristics. Therefore, it is unsurprising that this study observed significantly higher TBA utilization rates, although they are lower than those observed in Nigeria.

The observed high prevalence of TBA use in the district is not surprising, as the use of TBA is viewed as a tradition that must be observed. Traditional women uphold the services of TBAs and are recognized in many essential functions. The role of TBAs in the maternal healthcare system in low-income countries must be emphasized.[21] A review of studies in most African countries showed that women continue to depend mainly on the services of TBAs during childbirth and give them respect and support. TBAs are the first point of call in most rural communities for any maternal and child healthcare.[22] It is not surprising that most studies in African countries continue to show higher utilization rates. Two different studies in Ethiopia[23,24] observed TBA utilization rates of 51.4% and 47.0%, respectively, which were more than what was observed in this study. A review of some studies in Kenya[24–27] observed different results ranging from 50.3% to 59.2%. It is evident from these various studies that, although the TBA utilization rate of 26.5% in this study was high, comparatively, it is one of the lowest utilization rates among various studies both in Ghana and within sub-Saharan Africa. Despite the critical role TBAs play in the health system of developing countries, it is essential to understand the pull factors that contribute to the increased utilization rate of TBAs at birth.

Factors Associated with the Use of TBAs

The increased use of TBA services continues to pose a maternal danger to women. In 2020, the annual performance assessment of the District Health Directorate showed that more than half of all maternal complications that were referred to health facilities were primarily women who decided to deliver at home either with the support of a TBA or by any family member.[28] Sadly, 1 in 10 of these cases resulted in either loss of the mother or the baby. The TBAs who assisted in these deliveries do not have adequate logistics and requisite skills and knowledge to manage complications, especially when the positioning of the baby is not normal. Unfortunately, when a woman dies giving birth, some community members tend to attribute it to the "will of the gods" and may not want to associate it with the TBAs.

Sociodemographic characteristics

The use of the services of TBAs at birth was, however, influenced by factors such as the age of the women, religion and educational status of the women, the number of ANC visits, parity, and the attitude of health workers. The age of the women showed a significant relationship with TBA use, such that women aged 35 and above were more likely to use the services of a TBA compared with relatively younger women. This observation corroborates other studies in Ghana and beyond.[19,25,26] As the age of women increases, the use of a TBA at birth also increases. The use of TBA services at birth across many the studies was relatively higher when the women were older than 30 years.

Generally, TBAs are recognized by older women as people who are mature enough to see their "nakedness" without having any shame. Older women perceive health workers as too young to understand their system and appreciate their plight. In most of these health facilities, especially in rural communities where deliveries are conducted, maternal health units are often managed by young midwives who might have just been posted. Where there are no midwives, young nurses playing task-shifting roles try to conduct deliveries, and these are mostly seen as too young to assist in deliveries.[23,27]

Obstetric factors

Parity of women has consistently been shown in many studies to predict use of TBAs at birth significantly. This study noted that women who have had at least four births were more likely to use the services of a TBA at birth. Other studies[12,25,29,30] noted that older women, after several deliveries, are perceived to have gained experience in childbirth and, therefore, do not require a midwife or a nurse to deliver her. All the studies, therefore, concluded that as the number of deliveries or children increases, the rate of TBA use at birth also increases.

Another significant factor observed in this study was the education status of the women. Women who had no education or primary education were more likely to use the services of TBAs than women who had attained tertiary education. This result is consistent with a study in Ghana.[25] Other studies[19,31] in Nigeria reported similar results. Their studies observed that women with no or lower education were more likely to use the services of TBAs than those with secondary or tertiary education. Other studies in Asia[32] also observed that all women who had completed at least secondary level education had institutional delivery compared with those who had never had an education. Education has been identified as one of the major contributors to advancing maternal health service interventions across the country. Women with higher education can appreciate the importance of accessing quality healthcare services and dispelling any myth and misconception associated with any maternal health service delivery.

Religious factors

Religious belief is one of the major contributing factors to uptake of any health service. It is not certain whether some religious practices and beliefs prohibit the uptake of some critical maternal health services; however, individuals within certain religious groups may display some characteristics that may be linked to TBA use during childbirth. Within the context of this study, it was observed that women who were traditionalists or belonged to the Islamic faith had higher odds of using TBA services at birth than women who were Christians. There were no clear reasons associated with this observation; however, the general perception of the traditional belief system increases the acceptance of TBAs as part of their tradition. Similar studies[33,34] corroborate the results of this study. These studies noted that Christians were less likely to use the services of unskilled birth attendants as compared with their colleagues who were traditionalists. An earlier study in Nigeria also observed that women who were traditionalists had higher odds of using the services of TBAs during childbirth as compared with women who were Christians.[26] In developing countries, especially rural ones, home delivery is seen as a culture that must not be abolished. The presence of a TBA in a rural community even provides more grounds for cementing this traditional ideology. Even among Muslims, the use of a TBA is not directly influenced by their beliefs in Islam, but it is largely fueled by traditions of the past within the communities they live.

Health facility factors

It was observed that women who made less than four antenatal care visits were more likely to use TBAs at birth compared with women who made at least eight antenatal care visits during pregnancy. Antenatal care has been identified as the entry point to most maternal health interventions. Women are given various services at antenatal care service points, including education on the importance of skilled delivery. Growth monitoring of the fetus helps health workers identify any complications and work to limit its effect on both the mother and the unborn baby. In assessing the importance of ANC services to women, antenatal care provides the best cost-effective services to pregnant women compared with any other health intervention.[35] Women who adhere to the World Health Organization standards of eight antenatal visits benefit from different interventions introduced at different stages of the pregnancy. The relationship between the number of ANC attendance and the use of TBAs at birth has been established in different studies.[33,36] Women who continue to use ANC services continuously are more likely to use the services of SBAs at childbirth as compared with women who do not use ANC services.[20]

The attitude of health workers in the health system plays a vital role in providing quality healthcare services. The study observed that women who had friendly experiences with health workers during antenatal care visits were less likely to deliver with a TBA than women who

had an unfriendly experience with health workers. Some women were poorly treated during ANC sessions by the midwives, and for that reason, they are always afraid to go to the facility for skilled delivery. The experience of some women during their previous delivery deterred them from having a similar experience.[37,38] Some of the experiences included shouting at them during labor or ANC sessions, leaving the pregnant woman to struggle alone during labor, and sometimes abandoning them and their babies after delivery, especially when there is a new labor case. In some instances, nurses were rude to women. Other women expressed shock at the behavior of some nurses, who were described as abusive.

Strengths and Limitations

The study adopted a quantitative approach that helped to estimate the prevalence of TBA use within the district using a representative sample. The quantitative approach adopted by the study enhanced identifying factors that were more likely to influence the use of TBAs in the district.

However, one of the key limitations of the study was that it did not involve TBAs and health workers to solicit further their respective views on why women in the district continue to use the services of TBAs during childbirth. The perspective of TBAs on their role and how they see themselves fit into the maternal health system may be an essential aspect to look at. In addition, TBAs may have different perceptions about midwives and nurses who assist in delivery. Similarly, health workers may have different perspectives about TBAs, and they may be involved in the maternal health cycle. Again, the study did not also assess the involvement of men in the use of TBA services. Within the traditional system, the role of men in accessing healthcare services must be emphasized. This assessment could have given further details on the linkage between TBAs and health facilities. Despite these limitations, the result of this quantitative study is valid and can be generalized to represent a true reflection of the sample studied.

CONCLUSION

Use of TBA services at birth in the study district remains relatively high. Although some decisions may be based on individual factors, others were related to health service factors that require policymakers' attention and health administration management to address the challenge. In the North Tongu district, the district health management teams should begin engaging community women groups and other key stakeholders, including TBAs, to discuss the best possible means of referring and assisting pregnant women to the health facility for skilled delivery. On the other hand, the health management team should be able to address the challenges of the high delivery cost and limit the items requested at the hospitals before delivery. Similarly, individual factors that were identified could be discussed among stakeholders in the district to develop key strategies for limiting the use of TBA services at birth.

Further qualitative study could be undertaken among TBAs, midwives, and community leaders to gather their perspectives on the use of TBAs among pregnant women for childbirth. The qualitative study should be able to provide further details and meaning to the observed results in this study.

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