Antenatal Care Use and Skilled Birth Attendance in Benishangul-Gumuz National Regional State of Ethiopia: The Case of Two Districts

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Abstract

Delivery through skilled birth attendance (SBA) reportedly reduces maternal and new-born mortality. Despite a steady rise in antenatal care attendance over the past few years, which is believed to be a good predictor of skilled delivery, utilization of skilled birth attendance in Ethiopia is quite low. This study explored the underlying socio-cultural factors and service-related constraints of SBA utilisation in Mengi (rural) and Assosa (urban and rural) districts of Benishangul-Gumuz Regional State of Ethiopia. The study was conducted during December 2012 to January 2013. Data was gathered using key informant interviews with service providers, in-depth interviews and a focus group discussion with women who were pregnant or had at least one child in the recent past from the time of the data collection. The study was supplemented by service statistics gathered through desk review. Collected data were transcribed, categorized and thematically analysed. Antenatal care utilization was consistently much higher than SBA utilisation in both woredas. Factors that were primarily associated with the low level of SBA utilization include: not believing in the need for skilled health care, women's lack of participation in decision-making in their health care, not affording the cost of transport, lack of resource to ensure birth preparedness, religion and traditional beliefs, poor state of the service in skilled health care, distance from facility and lack of transportation.

Keywords: Antenatal care use, skilled birth attendance, Benishangul-Gumuz, barriers

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1.Introduction

1.1. Background and statement of the problem

One of the most important factors that reduce maternal mortality is delivery through skilled birth attendance (SBA). In Ethiopia, data shows quite low levels of utilization of SBA despite a rise in antenatal care (ANC) attendance, can be considered a good predictor of skilled delivery. This picture is clearly depicted in the two most recent Demographic and Health Surveys (DHS) and the mini DHSs conducted in the country in 2014 and 2019. According to the 2011 DHS, only 10% of the births that took place during the five years preceding the survey were attended by skilled providers (CSA and ICF International 2012). This figure was improved to 15% in 2014 and to 26% in 2016 (CSA 2014; CSA and ICF 2016). A close examination of the comprehensive EDHS data of 2011 revealed that the percentage of women who utilized the services of skilled providers during delivery was much lower than the percentage of women who received ANC services or made ANC visits to a facility (10% and 34%, respectively) (CSA and ICF International 2012). In light of this gap, it is imperative to examine the factors contributing to the high levels of drop in the proportion of women using SBA in the continuum of maternal and neo-natal health services. Actually the gap between ANC and SBA utilization persistently continued as evidenced by EDHS 2016 data (26% and 62%, respectively) (CSA and ICF International 2016)

Although the overall utilization of maternal health services in the country is not at the desired level and the break in the usage of the continuum of maternal and neo-natal health services is relatively high, this paper particularly focuses on the break/gap in the use of ANC and SBA. This is justified by various factors. First, the utilization of SBA is reported to be the single most important factor contributing to a significant reduction in maternal mortality (WHO 2004). Accordingly, a huge drop in utilization of SBA compared to ANC has detrimental impacts on efforts geared towards reducing maternal mortality. Second, although a steady rise in the utilization of different segments of maternal health services has been noted, for example in family planning and ANC, the increase in SBA has not been as significant or at par with these other services. In light of this, it is important

to ask why pregnant mothers that use services like ANC do not proceed to utilize SBA. Third, ANC attendance which is believed to be a good predictor of SBA has shown significant improvements reaching well over 60% across the country. While SBA has also shown remarkable increase it was still at 28% according to the 2016 EDHS report (CSA and ICF, 2016:133) indicating that SBA is consistently lower than ANC use. This persistent drop in use from ANC to SBA raises the question as to why women that have gone through the trouble of attending ANC do not proceed with SBA.

Although the gap between ANC and SBA is wide, the focus of many of the studies conducted in Ethiopia, in regards to utilization of maternal health services, has been on investigating the factors that affect the utilization of one aspect of the entire package of maternal and newborn health services. Thus, aspects such as ANC, SBA, Postnatal Care (PNC), access to neonatal health services are, by and large, dealt with in isolation from each other, without attempting to consider the interface or connections between the various aspects of the maternal and newborn health service package.

Furthermore, a great number of previous studies on maternal health service utilization focused on in-depth analysis of the Demographic and Health Survey data sets. Although DHS is a nationally and regionally representative data set, the scope of the in-depth analyses is quite limited to the variables covered in the survey. As such, the studies may not sufficiently investigate the socio-cultural nuances, impacting on the demand and supply side, affecting service utilization as the latter do not form part and parcel of the DHS variables.

Departing from this approach, this study aims to gain an understanding of why women, who utilize ANC services rendered by skilled providers or at facilities, do not opt to continue to use SBA for delivery. The study uncovers the variety of determinant factors, including underlying socio-cultural factors, impacting on the utilization of these services. Benishangul-Gumuz (BG) Regional State is the area selected for the study. BG is one of the country's developing regional states in the classification of the federal states into developed and developing based on the level of economic

development (World Bank 2013). The rationale for selecting BG emanates from its status as a developing regional state, i.e., these states are usually considered to be underserved in terms of investments in services such as education and health. Focusing on two woredas of the Benishangul-Gumuz Regional State, the paper attempts to explore factors that impact utilization of ANC and SBA and most importantly the particular factors that result in breakage of the utilization of services going from ANC to SBA.

Studies or data in Ethiopia over the years show that the percentage of women who utilize the services of skilled providers or facilities for delivery is much lower than those who attend antenatal care service or visit facilities for maternal, newborn and child health care. The following figure shows the gap between ANC attendance and SBA over the years at national level.

Services utilization rate	Year			
	2011	2014	2016	2019
ANC attendance (%)	34	40	62	74
Skilled birth attendance (%)	10	15	28	50

Source: Compiled from (CSA and ICF International 2012; 2016), 2014 Mini DHS (CSA 2014) and 2019 Mini DHS (EPHI and ICF 2019)

It is assumed that ANC plays a crucial role in terms of encouraging women to deliver with the assistance of skilled birth attendant or in a facility. This is true in Ethiopia as well as in other countries around the world (Nigatu 2011). A study from Ghana showed a higher inclination toward skilled birth attendance among women who had, at least, four antenatal care visits (Baatiema et al. 2019). Similarly, in Kenya showed that the number of antenatal visits was strongly associated with client's intention to deliver with a skilled birth attendant at delivery (Nyongesa et al. 2018). Further analysis of the 2011 Ethiopian DHS showed that ANC attendance is one of the factors for SBA in Ethiopia (Yohannes et al. 2018).

However, available data from Demographic and Health Surveys show that, although the number of pregnant women who attend ANC is quite high, the proportion of women who use skilled assistance during delivery is consistently low (CSA and ICF 2016; EPHI and ICF 2019). What are the

factors that impact on the utilization of each of these services? What factors continue to be barriers when one goes from ANC to SBA? What new factors, if any, emerge when pregnant women transition from ANC to SBA?

1.2. Factors affecting ANC utilization

The literature presents the reasons either in terms of factors favoring home delivery or as factors against institutional delivery. One notes that there are supply as well as demand side problems/challenges associated with the higher proportion of delivery outside of skilled assistance.

According to the Ethiopian DHS of 2011 (CSA and ICF 2012), transportation to health facility, lack of money as well as distance to facility were reported as barriers to women's access to health services. Positive associated factors identified in the report were first birth, younger age, higher education of mothers, higher household wealth, and living in urban area (CSA and ICF 2012). Similar results have been reported in studies covering various regions in the country. For example, a qualitative study conducted in Ethiopia attempted to examine the location of childbirth in rural Ethiopia. The findings showed that perceptions of a normal delivery, decision making processes regarding place of delivery and level of knowledge and health education were factors influencing home delivery (Bedford et al. 2013).

Another qualitative study of community perspective on why women did not deliver at health facility, based on eight focus group discussions in Butajira woredas, South Central Ethiopia, identified both individual/client and institutional factors. Client related factors were decision making on place of delivery, reliance on TBAs, misconception about services provided at health facility, non-presence of family members at time of labor and delivery, and lack of privacy and accessibility to facilities. On the other hand, service related factors were poor reception, refusal of admission, inadequate information, poor competence, shortage of staff and materials (Meselech et al. 2013).

A study examining why women prefer home births in Southern Region, Kembatta-Tembaro area, reported the following as important factors

contributing to home delivery: the belief that institutional delivery is not regarded as necessary, institutional delivery is not customary, high cost and lack of transportation (Solomon et al. 2013). The study also reported that economic reasons, low level of awareness of the health benefits of skilled birth attendance and limited decision making role among the women were additional reasons for not preferring home delivery. About, 71% of study participants reported to have utilized ANC while just 16% delivered assisted by skilled providers. The study participants revealed that they preferred traditional birth attendants as these attendants were culturally acceptable and competent as well (Solomon et al. 2013).

A study using the EDHS 2011 data examined skilled delivery care service utilization in Ethiopia (Melaku and Nigatu 2014). The results showed that only 15.6% received skilled delivery care services either at home or at health institution. Place of residence (urban), ANC utilization, women's education, age and birth order were identified as key predictors of SBA service utilization.

Other local studies in Oromia (Alem and Meaza 2012) and Tigrai (Yalem et al. 2013) also revealed that educational level of women and pregnancy related health problems including previous history of prolonged labour were factors that influenced delivery at health facility

A phenomenological study in Hadiya zone, Ethiopia, based on key informant interviews and focus groups discussions with women who gave birth in the last 12 months without skilled attendance, but who had attended ANC, revealed poor counseling during ANC visit, tradition, early pregnancy symptoms and lack of planning in advance of birth were the major factors breaking the transition from ANC to SBA (Yohannes et al. 2018).

The major factors favoring home delivery, as opposed to institutional delivery, related to the following: (a) the belief that institutional delivery was not regarded as necessary nor as customary while home delivery is regarded as customary; (b)economic reasons such as unaffordable high cost (indirect) in connection to facility delivery and lack of transportation; (c) low level of awareness of the health benefits of skilled birth attendance and

limited decision making role among the women; and (d) closer attention from family members and relatives, unexpected labour and absence of problems/complications at the time of delivery. Problems in service provision such as poor reception, poor counseling at ANC, lack of privacy, poor competence, and shortage of staff and materials at health facility were identified as contributing factors for women not to consider delivery at health facility.

1.3. Problem statement

Although major factors affecting use of SBA could be common to most parts of the country, variations exist across population groups, for example, living in urban or rural area, and/or of populations of different cultural backgrounds. It is thus essential to explore further the socio cultural and contextual barriers affecting SBA particularly in the developing sub regions such as Benishangul-Gumuz regional state so as to widen the evidence base to guide objective intervention.

The available data revealed that, among other development indicators, the number of existing health facilities providing primary health care services in these developing regional states was below the national average. Serious problems were particularly noticeable on the supply side of the health care services in these regions (MoH 2014).

In addition, it was equally important to note that demand side constraints and challenges were widely prevalent in these states. The World Bank Health and Social System Assessment (2013) carried out in connection with the Fourth Health Sector Development Program (HSDP IV) of the Federal MoH in the regional states showed that there was a high degree of reluctance on the part of the local population to utilize the limited available health care services (World Bank 2013). In general, the underutilizations of available healthcare services in these regions are attributable to the following essentially demand side factors: deep rooted traditional customs resulting in a strong tendency to favor traditional medicine over modern medical treatment, high rate of illiteracy among the local population, and poor transport and communications infrastructure seriously limiting service accessibility and utilization (World Bank 2013).

The Benishangul-Gumuz region is home to close to a million people with 50.7% male and 49.3% female population. The fertility rate stood at 5.2 children per woman in the same period. Examining the general picture of the potential demand for maternal health services, females within the reproductive age group of 15-49 constituted 24.05% of the population, while pregnant women accounted for 4.6% of the population during the year preceding the study (2012) (Benishanguel Regional Health Bureau 2012). In terms of health service infrastructure in 2012, the region enjoyed having two hospitals, 31 health stations and 354 health posts whereas 44 health posts, nine health stations and four hospitals were under construction. (Benishanguel Regional Health Bureau 2012). On the other hand, the maternal health care utilization of ANC and SBA, particularly in the study woredas, Mengi, and Assosa, was much lower for SBA (BGR Assossa Zone Health Bureau 2005).

The picture in terms of maternal health services coverage relating to the two indicators showed that there were wide differences between the use of ANC and that of SBA Mengi and Assossa woredas. The comparison with the city of Assossa also showed that there was not much difference in terms of the utilization of SBA between the city and the rural woredas.

In Mengi Woreda, the utilization of ANC was quite high with about 80% of the eligible expectant mothers making use of the service. This finding was interesting in that it was a much higher utilization rate compared to the urban centers of Assossa Woreda and even the capital city, which stood at 34% and 37%, respectively. However, the picture was similar in all three localities when it came to SBA, the figure was quite low with just 7%, 5% and 8% use of skilled delivery of those eligible for skilled delivery in Mengi and Assossa woredas and the capital city of Assossa, respectively.

In Benishangul-Gumuz Region, long-prevalent socio-cultural barriers seriously affected maternal, newborn and child health and frustrated the implementation of the health extension program. As a result, pregnant women and mothers were reluctant or, when they desired, found it difficult to access antenatal, delivery, and postnatal care services. (World Bank

2013). However in-depth exploration and understanding of these barriers would be relevant to guide intervention.

2. Materials and Methods

2.1. The study area

The field work in the Benishangul-Gumuz regional state, conducted during the period December 2012–January 2013, covered two woredas, one representing a rural woreda and the second from the regional center, Assossa Woreda, representing an urban area with the aim of getting better picture on the status of utilization of these services. The rural woreda, Mengi, is located some 90 Kms from the capital Assossa. In addition, attempt was made to gather data from the capital city of Assossa. Various factors were taken into consideration in selecting the two woredas: representation of rural and urban/semi urban populations, diversity in culture, religion and way of life.

Mengi Woreda is home to the Berta people that are predominantly Muslim. The population size is 39,197, of which 49.8% are women according to the 2007 census. (Benishangul and Gumuz Regional Health Bureau 2012). The settlement of the population is very much scattered, with low population density and far from accessible roads. This poses a problem in terms of ensuring accessibility of social services. The major sources of livelihood in the Woreda are traditional farming and gold mining. Both sources of livelihood are predominantly carried out by women.

Assossa Woreda is located surrounding the capital of the regional state. It is inhabited by different groups: The Berta people, settlers from the highlands of Ethiopia and migrants from other parts of the country. The population size is 79,933 with women accounting for 49.3%. (Benishangul Gumuz Regional Health Bureau 2012). Settlers and other migrants are mainly engaged in farming and petty trade activities. Given its relative location, the availability of social services like health and education was relatively better, according to key informant interview with Health Promotion process owner.

2.2. Study design

The study design is phenomenological qualitative research design which explores the lived experiences of study participants with the aim of uncovering underlying reasons for ANC use at different levels.

2.3. Data sources and methods

This research was essentially a qualitative study. Thus, four separate and yet inter-complementary qualitative data gathering instruments were used to generate the required information. Methods of data collection included desktop review, in-depth interviews, key informant interviews (KII) and focus group discussion (FGD). The desktop review examined appropriate literature and documentation including annual performance reports of the health sector at regional and woreda levels, published and unpublished documents dealing with the subject under research. In-depth interviews were undertaken with women who attended ANC services but who did/did not continue to use SBA. The selection of the participants was carried out through purposive sampling on the basis of the records at the health facility registries. A total of 16 in depth interviews were conducted at Mengi Woreda and a total of five at Assosa Woreda. Key informant interviews were held with purposely selected categories of people believed to be in a position to provide a wide spectrum of general and personal views. Eight key informant interviews were held, four each from Assosa and Mengi health centers. Key informants were nurses and woreda health bureau heads. Another key informant interview was also held with the Health Promotion and Disease Prevention Core Process Owner at the Regional Health Bureau. FGDs were conducted with women selected on the basis of age, educational status, and health service seeking behaviour. At Mengi, one focus group discussion was held with six women, while at Assossa another focus group discussion was held with seven women. In all the cases, participants were informed that their participation is based on their free will. The interview and discussions were held after their consent was obtained.

Content analysis technique was applied in reviewing literature and reports from relevant health offices. The data from the service statistics obtained from the regional and wereda health Bureaus were presented in descriptive

tables to provide background for the analysis. Narrative and thematic analyses were employed after transcribing the data collected from the interviews and focus group discussions. The analyses involved narration of lived experiences of participants in relation to barriers encountered in using maternal health care on the part of mothers. As a result, it was possible to present vivid description of evidence. The analysis also involved thematically categorizing issues identified and synthesizing the findings.

Profile of respondents

The key informant interviewees were health bureau representatives of the regional, the Health Promotion and Disease Prevention Core Process Owner, and health workers – 2 midwives a man and a woman at Assosa Health Center as well as the Health Extension Officer at Assosa Zone Health Department. In-depth interviews were held with five women at Assosa woreda that were pregnant as well as women that gave birth recently. Also a focus group discussion was held with a group of five women.

Mengi Woreda

A total of 16 in depth interviews were conducted at Mengi Woreda with women that were pregnant as well as women that have given birth recently. Five of the women had attended ANC and gave birth in a health facility, one woman did not attend ANC but gave birth at a facility while the remaining 10 women had attended ANC in a health facility but delivered at home. The discussions were held in the woreda health center. A few were conducted at the residences of the women. One focus group discussion was held with five women, (four had attended ANC and gave birth at home while one woman gave birth in facility but did not attend ANC.

Key informant interview

A total of four key informant interviews were held: one with the Mengi Woreda Health Center Head, one with a nurse at the Woreda Health Center, one with the Mengi Woreda Health Office Head, and one with a health extension worker at Mengi woreda.

3. Findings and Discussion

3.1. Demand and supply side factors affecting utilization of affecting utilization of ANC and SBA services

Findings of the study showed that various factors influenced the use of the two services, a discussion with the region's health bureau 'Health Promotion and Disease Prevention Core Process Owner' revealed that there was good level of recognition on the difference between ANC attendances and SBA. In defining SBA, the health bureau of the region had the following view: "delivery within health facilities – health post (if equipment and facilities exist), health center, and hospitals – assisted by skilled personnel – mid-wives, nurses, health officers and physicians (doctors)". Health centers and health posts qualify as appropriate locations for skilled delivery where a minimum of the required equipment for carrying out delivery exist. In addition to this, the bureau at the regional level had a category of "clean and safe" delivery. This type of delivery was conducted by health extension workers (HEW) either at health posts or at home, where the HEWs used/utilized their mobile kit.

The health bureau at the regional level was quite aware of the discrepancy (differences) in the number of women that attended ANC service and the number of skilled deliveries. The data with regard to pregnant mothers within a given kebele was easily available as it was recorded by HEWs operating within the kebele. HEWs in a given kebele had the responsibility to register the number of pregnant women in that kebele and pass on the data to the woreda health bureau. The availability of this kind of data and the manner in which such data was collected (house to house visit by HEWs) showed that authorities were aware of, not only the number of pregnant women, but also those who attended ANC. The key informant interview further revealed that pregnant women registered by HEWs attended ANC.

The number of women who delivered through skilled assistance was captured through the health post/health center/hospital records/registry. However, the bureau did not have systematic way of collecting data on the number of women that delivered outside of health facilities. One can

compare the number of registered pregnant women, the number who attended ANC and the number who delivered in facilities to conclude number of deliveries without assistance. Factors that impacted on ANC, those that affected SBA and the reasons why ANC-attending pregnant women stopped to use SBA are presented as follows.

ANC attendance

According to the heads of the Health Centers at both woredas, the attendance of ANC among pregnant women came about in two ways. First, pregnant mothers came to the health center due to other health related problems. One of the questions raised during examination was whether they were pregnant or not. Once their pregnancy was confirmed, they were referred to the MCH section so that they could follow up ANC.

Second, expectant mothers came to the health center with the intention of following on ANC care, either on their own or through push by HEWs. Even among those who intentionally came for ANC, they came when they thought that the pregnancy was problematic/complicated or when they felt that it was uncomfortable and/or when they wanted to ensure/know that the baby inside was fine (in terms of the positioning and growth, heartbeat of the baby).

The women who came for ANC did not come early enough according to the key informants. Further, their follow up was erratic/irregular thus they might not fully benefit from the advantages of ANC service. Various factors contributed to this. Women's movement in any aspect of life, including towards attending ANC, depended on the husband. Unless the husband gave his consent/blessing, the woman could not go out and seek services. In Mengi Woreda, for example, the men in the area usually travelled for trade and mining work for extended period of time – up to two weeks. This created a problem for the women to use resources towards, for example, travelling to the health center, in particular if they came from far away places.

In-depth interview held with women in the Woreda revealed similar findings. The influence of husbands was one of the factors that came out

strongly. Muna, one of the participants, heard of ANC from HEWs. Although she was convinced of the benefits of ANC through the teaching of HEWs, it was only when her husband approved that she was able to attend ANC. "*My husband told me to attend ANC, it was from then on that I began to attend ANC.*"

A key informant interview with the regional Health Promotion and Disease Prevention Core Process Owner revealed that the influence of husbands was crucial for ANC attendance.

> In one instance, a Mao Como woman was attending ANC without the knowledge of her husband, who prohibited her from following up ANC. One day, while the husband was away, she made the journey to the local health facility to follow the ANC. However, the husband, suspecting the same, was following her. He followed her and beat her severely, that led to the death of first the fetus and then the woman.

Another reason for irregular follow up was the fact that the women were not fully convinced on the benefits and values of ANC. For instance, once the women found out that the baby inside was doing well and was positioned well, they might not even bother to come back for another appointment. Amani in Assosa Woreda shared that she already gave birth to six children and was on her 7th pregnancy. Regarding ANC attendance, she shared the following:

> I had gone once for ANC for the last pregnancy as I was not feeling well but I did not go again. Even for the future, I do not want to go to facility. In my area, it is only when it is the first child and/or when one gets sick that there is a need to go to a facility to check. Otherwise there is no need to go…

Transport, in particular during the rainy season which made the health centers inaccessible, was a major barrier to ANC attendance. Although the extent and nature of the problem varied, transport challenges were shared concerns in both rural and urban woredas of the study. In Mengi Woreda, some of the kebeles were quite far from the health center. People in the Woreda usually walked to the market and other services. Pregnant women also walked to go to the market and health facilities. At times, they might

use the services of few lorries that transported items to the market. These however were costly and not available during the rainy season. In Assosa Woreda, the issue was the cost of transport. Pregnant women who could not walk to the health center in the woreda rented 'Bajaj', a three-wheeled motor vehicle. That however was expensive for the majority, hence becoming an obstacle to timely attendance of ANC.

Supply side challenges also existed, barring women from attending ANC at health facility. Supply side problems included inadequate number of HEWs who linked up pregnant women with services and facilities. For instance, in Mengi Woreda though two HEWs were expected per kebele, it is only in two kebels of the woreda that such number was met. In fact, the Woreda used to have 48 HEWs and the number dwindled to 24.

There was also low level of confidence among the community on HEWs. This was due to the fact that HEWs were very young and drawn from the very community in which they served. This made community members feel that '*how can a young girl that we raised not long ago help with pregnancy service',* according to the key informant from Assosa Woreda health center.

The quality of service was a major concern that came out as one factor impacting on ANC attendance in the in-depth interviews with women. One of the participants complained of the services at the health center as follows:

> Sometimes we have to look for the health workers and they have to be called to come, treat patients, including women attending ANC. At times, because we stay from morning to way over lunch, we feel hungry.

Another participant, Dura, also shared that "*the health personnel may be absent at times. In such cases we have to come back again."* Sara, in her 4th pregnancy and at the health center for ANC, shared that:

> The reception at the health center depends on how many people there are at the time of visit. If there are many people, the health personnel get frustrated and we end up going home without receiving the service.

At the regional health bureau, the key informant emphasized that quality of service had serious implications on ANC attendance. The informant shared:

> The quality of health care service is not adequate compared to the expected standard in terms of: professionalism, for example the manner in which ANC services are delivered where there is unwelcoming reception by health personnel, skill gaps in competence to conduct their job among HEWs is also noted.

Not wanting to break from the tradition of home delivery was also a barrier for ANC attendance and facility delivery. Nuri, another participant, had not attended ANC for the previous two pregnancies. Her older children aged four and six were born at home. Nuri shared the following:

> During the time I was pregnant with the two older children, the majority of the women in the area were not using health facilities for birth and/or ANC although the health facility was operational at the time. All of us did not want to break tradition and be the first one to use the services of the health center for ANC and birth.

In summary, what came out strong regarding utilization of ANC by pregnant women in the study area was that it would happen mostly for first pregnancies and /or when some health problem was encountered or suspected. Otherwise the need for ANC for every pregnant woman was not well understood or accepted. The ANC visit could start late in the gestation period and also might discontinue (not meeting the required four visits) once the woman believed her health and that of the fetus were in good condition. This finding was noted in other studies too. The study in Hadiya zone (Abosse et al. 2010) identified no risk perception during pregnancy as a factor for ANC non-use, a systematic review based on developing countries (Simkhada et al. 2008) identified history of complications as a reason to start ANC. Other issues discerned in this study affecting ANC visit were husbands' disagreement to ANC visit or need to get permission for all movements. This was also observed in Hadiya Zone (Abosse et al. 2010), Distance and lack of transport as well as the cost associated to it were also factors identified. Supply side factors identified were shortage of staff, staff being absent at facility, poor competence of providers and poor reception

that affected ANC use and continuation as observed by Meselech et. al (2013).

Skilled delivery/skilled birth attendance

A focus group discussion was held with women in Assossa Woreda. Some had recently given birth and others were pregnant. In the discussion regarding skilled delivery, the participants pointed out that their low economic status (poverty) was one reason that pushed them to deliver at home and avoid institutional delivery where they can get skilled assistance. This was manifested in different ways.

The participants raised the issue that if they had to go to a facility, they would need to wear relatively clean clothes and carry blankets like 'gabi' and 'fota', which they did not own. Another factor related to poverty and raised by the participants was whether they would prefer to get the support of their neighbors when they gave birth, such as getting food and other related supplies rather than asking their neighbors to take them to hospital to give birth. Some of them stated that usually their labour came while they were doing household chores like baking *injera*. In those instances, they would need to wash and clean up to go to the facility but they refrained from going to the facility for fear of producing bad smell and being unclean.

Transportation was also a major hurdle for the women focus group discussants. In Asssosa Woreda, for example, though ambulance service was said to be available, the participants claimed that they did not know the number and hence might face difficulty in accessing the service. This was, particularly, a problem for them at night because during the day, although they might not get the ambulance for different reasons, they could resort to use 'bajaj'. A key informant at Assosa Woreda Health center shared the following:

> First there is lack of information about the availability of ambulance service. The women, do not know it exists or how to access it. Second option is 'bajaj'. However, it may not be readily available and is costly so if they cannot find bajaj that would be it [they would not be able to go to the health center].

The problem of transport was even worse in Mengi Woreda. This was particularly an issue for pregnant mothers coming from places located far away from the health center. In order to address this problem, which was also recognized by the authorities, ambulance service was provided. However, the ambulance service had a lot of challenges. Calling the ambulance was not easy because of the poor mobile network connection in the area. This might lead to delay which, as seen in some cases, resulted in the death of mothers. In such cases, the husband was forced to travel to the health center where the ambulance was located. Even when they succeeded to call the ambulance, either of two things might happen: the ambulance would have gone out for another mother or it would take quite some time to get to them (sometimes four to six hours to reach to the furthest places).

Although the ambulance collected an expectant mother from her place to the health center, she was not given transport service home after delivery. She was forced to look for alternative means such as services of 'bajaj', which was expensive. As she usually came accompanied by groups of three to four, cost of transport for all would fall on the family. Moreover, using 'bajaj' had its problem in that the mother and the new born were exposed to undesirable environmental conditions during transport.

The participants of the focus group heatedly discussed the cost of services for delivery at a facility. While some were aware of the fact that delivery was free, others were not. But overall, although delivery was believed to be free at a facility, they might be asked money for things like medicine. For fear of such associated costs, pregnant women preferred to give birth at home. A key informant from the regional health bureau shared that there was a belief among community members that they would be required to pay for facility delivery. This was attributed to misinformation among the public.

The role of husbands was also a major point of discussion among the participants. They emphasized that it was only when the husbands cooperated that skilled delivery might be an option. For example, pregnant women stated that during ANC attendance, they were required to undergo HIV testing; some husbands might not want this so they prohibited their

wives from any kind of follow up in a facility. The participants also raised how husbands preferred home delivery because they thought and believed that facility delivery incurred cost/ required them to pay. Unless there was complication, husbands preferred home delivery. If the husband decided for home delivery, it was final.

If a woman managed to go to a facility after passing through all these hurdles, the participants stated that female health personnel were not, in the majority of cases, welcoming and receptive. They stated that women patients generally preferred men personnel because men seemed to sympathize with patients' pain while female personnel were generally cold and did not sympathize with patients during labour and birth. Pregnant women said they usually heard, from women who previously delivered in facilities, of abuse by service providers. Because of these rumors, they preferred to stay home for delivery.

It is interesting here to note that in FGD discussion with women in Mengi Woreda as well as in-depth interviews, the women shared that they preferred to have female health personal during delivery. This was also the wish of their husbands. Nuri from Mengi Woreda shared the following experience:

> My neighbors opt to deliver at home because the delivery service is provided by male medical personnel. Showing off their naked body and private parts to male medical personnel is not acceptable to the women as well as their husbands. This draws from the religious prescriptions – the community is mainly muslim. If the delivery service is provided by women, more and more of my neighbors say that they would deliver in a facility.

Aysha, another participant from Mengi, stated that the men in her communities were pushing for home delivery because they did not want their women to be seen by the male health personnel. Men opt for facility delivery when there was complication during labour. When we met her at the health center, she had already finished her 9th month of pregnancy and was not able to find anyone to provide service at the health center.

Another concern they raised was that facilities were not clean and comfortable. There was shortage of water in facilities, particularly in health posts, so the place was not clean. Those who had experienced this told others not to go to the facility because it was not clean. At home, one had the chance of cleaning up.

Zemzem, from Mengi Woreda, was on her third pregnancy. She had attended ANC and planned to give birth at the facility. Zemzem shared that she heard of complaints from her neighbors regarding the facility.

> The facility can also be improved to make it comfortable for women to deliver there. For instance, if there is a possibility of getting bed for the newborn. The delivery bed has no mattress or sheets, there is no food for women who have delivered… as these services are not available at the facility, women may choose to give birth at home, seeking the comfort.

This was also a view shared by the Mengi Woreda health center head. The key informant shared that water shortage was a major problem in the Woreda. There might be lack of water supply when the electric power failed, as water pumps worked on electric power. In these instances, they were forced to get water from ponds around the area. These circumstances compromised hygienic delivery of SBA.

Related to this was the issues of adequate space for delivery. The midwives at Assosa Woreda health center were of the view that the delivery space could only accommodate two women at a time. Accordingly, if there were two women at a time and a third one arrives, the third one will be referred to another health service site. This had its own limitations in terms of the services that could be provided.

Participants of the study stated that SBA and facility delivery was not the norm or custom in the society, and women opted to go to facility only when the need arose. Amani, who lived in Assossa Woreda had very strong opinions about delivery in a facility/skilled delivery. Amnai had six children and she gave birth to all of them at home. She said that as she had not faced any problem to give birth at home, there was no need for her to go to a facility. She said,

> It is only when there is a problem that you go to a doctor. I have gone once for ANC for the last pregnancy as I was not feeling well, but I did not go back again. Even for the future, I do not want to go to facility. In my area it is only when it is their first child and/or when one gets sick that there is a need to go to a facility, otherwise everyone gives birth at home. After all, is not it the case that everyone was born at home in the past? It is only recently that facilities came.

Derebe, another participant from Assossa Woreda, was pregnant with her first child. She said she had been attending ANC and planned to give birth at a facility. But she was keen to share stories of her neighbors. She said:

> In my neighborhood, women neither follow up with ANC nor deliver through skilled delivery. They give birth at home using traditional birth attendants. These traditional birth attendants are usually paid money to provide their services. I have recently seen two women deliver through the help of traditional birth attendants. When I ask them why, they often say 'can't you see? Nothing has gone wrong with the traditional birth attendants. Everything has gone well. So there is no need to deliver in a facility'

Unexpected and quick labour was another reason that resulted in home delivery, according to the participants of the study. Zehara, from Assosa Woreda, stated she had given birth to three children but only the last born was delivered in a facility through the assistance of skilled attendants. Zehara said she had followed ANC even for the second born in addition to the last born, but ended up giving birth to the second born at home. She described the situation as follows:

> Ever since I had come to know about ANC, I have been following up. This is starting with my second pregnancy. At the time, I intended to deliver at a facility. However, the labour was very quick. There was no time for me to get transport and go for the nearest facility so I gave birth at home. But the third child was born in a facility as I came in time to deliver there.

In Mengi Woreda, we found Muna at the Woreda Wealth Center while she came to attend ANC for her fourth pregnancy. She shared her story as follows:

> I gave birth to my previous three children at home. I did not have a problem with the labour for all the three children. In the last pregnancy, the labour came prior to the date of my ANC appointment, so I gave birth at home. In the previous two pregnancies, I did not attend ANC. As the labour was not problematic, I gave birth at home. Usually labour does not stay for long for me and I give birth quickly. When women in my village have problems with labour, they bring them to the health facility. Now I intend to give birth at the health center. When I reach the due date, I will call for the ambulance and deliver at the health center.

Another participant, Dura, was attending ANC when we ran into her in the health center. Her story was typical of the women who attended ANC but delivered at home.

> Although I have attended ANC for all my previous pregnancies, I gave birth at home in all the three cases. This is because my labour came unexpectedly and, furthermore, there was no transport service (like the currently available ambulance).

Sharing her experience of home delivery, Dura said: *as the labour was not long and complicated, I had easy delivery*.

Dura further shared the perception of her community members about facility delivery. Dura said she was the 4th wife to her husband and all the other wives had given birth at home. Only two women in her locality had so far given birth at a facility.

Sara is another participant who recently gave birth at a facility. She came to use skilled delivery in her last pregnancy. Sara said she delivered all the three children at home alone. She said she had unexpected labour. In the third pregnancy, she attended ANC and planned to give birth at a facility, but ended up giving birth at home. Explaining the reasons, Sara said:

> …the labour was sudden and there was no transport service. But now because there is ambulance, I intend to give birth at the health center.

Aysha, another participant, had a very interesting story. This was her 10th pregnancy. She gave birth to her nine children at home on her own without any support. Aysha said she did not know of anyone who gave birth at a facility in her kebele because the pregnancy and labour was easy. She said everyone gave birth at home. Aysha said she came to the health center for the 10th pregnancy because she did not feel well during the current pregnancy. Explaining why there was preference to home delivery, Aysha said:

> The men in my community are pushing for home delivery because they do not want their women to be seen by the male health personnel. It is when there is complication with labour that the men opt for facility delivery.

Zemzem shares the above view. Speaking from her own experience, she said:

> For the first child, I was in labour for two days at home. On the third day, I came to the health center. I stayed at home for two days because the labour was not that much difficult. Even if I came to the health post, they would have told me to go home and come back later.

A key informant interviewee at Assosa Woreda Health Center shared that if expectant mothers had many kids, because they were used to the experience of giving birth, they end up delivering at home while doing some other work. They do not have the time or the need to come to a facility for delivery. This was also a reason commonly raised in the literature, for example, by Nigatu 2011; and Simkhada, Teijlingen, Porter, and Simkhada, 2018, with many expectant mothers gaining experience in terms of delivering at home.

In summary, important barriers identified for SBA in the study areas were, belief that child birth was normal and no need to change the tradition of home birth; poverty manifested in many ways and being deterrent to consider facility delivery; lack of transport before and after birth to and from health center and cost associated to it. These barriers were also reported by

other studies, such as CSA and ICF (2012), Solomon et al. (2013), Meselech et al. (2013).

Being handled by male health personnel at delivery was strictly culturally unacceptable for both the woman and the insisting husband. Supply side barriers identified were non availability of ambulance; unwelcoming and unclean health facilities with shortage of water, family members not allowed to support the woman during labor time as it is the custom if it were home delivery, no food for the delivering mother, as compared to a supportive environment at home. This fact again is shared by many other studies too including DHS reports (CSA and ICF 2012), study in Butajira, (Meselech et al. 2013) and study in North-west Ethiopia, (Alemayehu et al. 2012). Finally, a common reason for home delivery was labor happening suddenly and quickly and no time to travel to facility, which was identified also in the study in North West Ethiopia, (Alemayehu et al. 2012).

Break in the use of the continuum of maternal health care: ANC and skilled delivery

The previous section examined the factors affecting the utilization of ANC and SBA. In so doing it attempted to elaborate the connection between the two with regards to the factors that deterred women from continuing to use skilled delivery while having attended ANC.

Although it is reasonable or logical to assume that women that had gone to a health facility for ANC had access to facility and thus would follow on and use SBA for delivery, the literature as well as the findings from the field work showed that: first either additional factors and/or a different dimension of existing factors might come into play with regards to the decision on place and manner of delivery and second, the intersection/combination of factors/barriers might prove more cumbersome to access and utilize SBA compared to ANC. The major factors that emerged from the study were highlighted below.

Poverty played a role on appearance, cleanliness and immediate needs like food after delivery during SBA. The impoverished avoided SBA because

they did not have the means to clean up themselves and wear clean clothing when going to the facilities.

Transport was a problem for both ANC and SBA. But it brought an additional dimension during SBA in that a woman who was about to deliver and could not walk to facilities, needed to be accompanied by family/friends to facility. She could not walk back home after delivering her child. Here poverty gave another dimension to the problem, where cost of transport by bajaj, if available, would be unaffordable for many families.

Although husbands played major decision making role on both ANC and SBA, it appeared that, for SBA, the factors swaying on the decision of husbands were different. Because SBA was more intrusive. For example, in the rural Woreda of Mengi, husbands had reservations on male health personnel providing delivery service. They were also not inclined to incur costs, be it in terms of transport and/or delivery associated costs for SBA.

Quality of service, in terms of poor reception by health personnel, confidence on the competence of health service providers and the like were also presented as additional dimension when it came to SBA. Women would likely be less inclined to spend more time, at their most vulnerable time, at a facility where they would get poor reception. What was tolerable for ANC might not be so for SBA.

The cleanliness and comfort level of facilities was particularly important for SBA where women were expected to spend more time in a facility. Added to a departure from what they were used to at home (in their culture) during delivery, the lack of water and clean and adequate space for delivery was a deterrent for women to deliver in a facility.

The widely accepted view that facility delivery was not necessary was more pertinent to SBA. This view, as much as it was rooted in the culture and tradition of the community, was also impacted by the ANC service. The ANC utilization appeared to be erratic/irregular thus they might not fully benefit from the advantages of ANC service, let alone be made well prepared for SBA through their ANC visits. Parity, although a reason on its

own account, also contributed to the view that "we have been doing it at home for so long, no need for facility delivery".

Quick and unexpected labour was also a common challenge. Even among the women who planned to use SBA for delivery, quick and unexpected labour would break the transition from ANC to SBA.

These factors emerged from the literature, such as CSA and ICF (2016), EPHI and ICF (2019), Kassahun and Kindie (2019), Araya et al. (2012), Meselech et al. (2013) and Yohannes et al. (2018) as well as from the stories of the women that participated in this study. An important question here was, "to what extent these factors were taken into consideration and targeted specifically in intervention packages aimed at expanding the continuum of maternal health services, in particular the use of SBA?"

Interestingly, a combination of factors, as seen in the case below, were also often seen putting the lives of expectant mothers at risk, including resulting in death. In Mengi Woreda, the following story depicts how the different barriers, in this particular case, the practice of home delivery, lack of transport and community's lack of confidence in the system intersected leading to devastating outcome.

> In Tume kebele of Mengi Woreda, an expectant mother had a visit from a HEW on the evening of Meskerem 24. The next day she had her labour and she did not want to call on anyone. She attempted to give birth on her own. When the umbilical cord was left inside, she called on a neighbor. When the neighbor could not handle it, they called on the HEW, the HEW tried to call for the ambulance which was out of service. They were not able to get other form of transport and in the end the mother died. The HEW faced criticism from the community for not alerting the health center about the incident; community members claimed that they would have handled the situation better in their own way.

4. Conclusions

There are shared reasons that either favour or hamper the use of ANC services and that of SBA. However, there are additional factors and/or additional dimensions of these factors that are primarily associated with the

low level of utilization of SBA. Recognizing these differences, the interventions targeted at increasing skilled delivery ought to go further than the similar messaging and measures that are being used for all types of maternal health services.

Particularly specific to Benishangul and Gumuz region, though all identified factors need to be addressed, issues strongly voiced by multiple sources in the study need to get priority. These are: the wide belief of taking pregnancy and child birth as normal and no need for skilled health care including ANC and SBA; women's lack of participation in decision making in their health care decision affects both ANC and SBA; poverty manifested in many ways such as not affording cost of transport and lack of resource to ensure birth preparedness; lack of transport to health facility; the poor state of the multidimensional quality of care that is available for ANC and SBA.

As reviewed in the service data, use of ANC and SBA was remarkably increasing in the recent past. This indicated the fact that, on the one hand, the communities' awareness was increasing about the life saving advantages of using the continuum of maternal health services, on the other hand, service availability and quality is on the rise. To keep these outcomes sustainably increasing, the identified barriers both on the demand and supply sides should be targeted in continued interventions.

5. Recommendations

Persistent work is required on individual counseling and community education to increase awareness of the life-saving advantages of the continuum of maternal and newborn health care by employing all media. The regional health office and collaborating agencies need to focus interventions to encourage male engagement, and husband-wife communications in relation to maternal health to minimize male-dominant decision making.

Regional health and gender offices need to have plan to support women through counseling and community engagement in resource mobilization for women to have better birth preparedness. Regional health office and collaborating agencies need to also avail functional ambulances in sufficient number.

There is need to introduce and/or strengthen maternity waiting homes to alleviate the delays that hinder timely use of SBA. Furthermore, there should be a continuous monitoring of availability of standard quality of care requirements and work towards meeting the requirement which will ensure having attractive health services.

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