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Original Research Article

Community factors accountable for home births in a low income rural setting in Ghana

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ABSTRACT

Background: Many maternal deaths occur as a result of delivery that takes place in the home or late referral of women in labour to the health facility. This situation is further worsened in remote poor communities of the northern region of Ghana; where health care services are inequitably distributed. This study determined the factors in low income rural communities that are responsible for the high numbers of homebirths using the Bunkpurugu Yunyoo district as a case study.
Methods: The study employed mixed method study that used both qualitative and quantitative methods. Three hundred women who delivered within the last one year were made to respond to a research questionnaire while four health care workers (three midwives and a general registered nurse) were engaged in an in-depth interview.
Results: The study identified poor road network, inequitable distribution of health facilities, inadequate family support during labour, cultural factors like taboos and the stigma associated with FGM to be responsible for the high numbers of home deliveries. Even though women intended to give birth in the health facility during pregnancy, they are unable to do so as labour occurs when they were not expecting it.
Conclusions: The study recommended the use of equipment like the ultrasound during the first trimester of pregnancy to measure accurately the expected date of delivery of each pregnant woman so as to enable them plan for birth.

Keywords: Home births, Skilled birth, Child birth, Traditional birth attendants, Maternal mortality, Rural community

INTRODUCTION

World-wide, each year, some 60 million births occur at home, and the pregnancy outcomes appear considerably worse than births that occur in a medical facility.[1] In developing countries, where women may not be able to afford medical care or it may not be accessible to them, a home birth may be the only option available, and the woman may or may not be assisted by a professional attendant of any kind or may even give birth unassisted. The presence of assistance during birth is helpful to the wellbeing of the child and mother. In Africa, relatives are usually accessible to perform this very crucial role. Much is still unknown about the attendants at these home births, particularly with regards to their training, delivery practices, access to medical equipment and testing, and their interaction with the formal health care system.[1] Wendy et al, described a home birth as a birth attended to or an unattended childbirth in a non-clinical setting, typically using natural childbirth methods, that takes place in a residence rather than in a hospital or a birth centre, and usually attended by a midwife or lay attendant

with experience in managing home births.[2] Home birth was, until the advent of modern medicine, the de facto method of delivery in Africa. In this study a home birth is a birth that has occurred outside the confines of the hospital irrespective of the challenges, person present or the situation leading to the birth or resulted from the birth.

Access and judicious use of the health facility serve an influential component to the improvement in maternal health services. In Ghana, it's either that these health facilities are unavailable or they are not accessible to pregnant women in the rural settings.[3] Gumanga et al, further reported that most maternal deaths from the Tamale Teaching Hospital were births that took place in the homes or as a result of late referral or a delay in transporting the woman to seek care in the higher facility. Aside these views, many health workers have indicated over the years that most of the maternal deaths that are reported in the country were as a result of late reporting to the facility or due to delivery that were conducted under unhygienic environment. Maternal deaths and infant mortality and morbidity in the country still stands at a staggering high figure (380 / 100000 live births) and the aim to halt this preventable deaths of women is the wish of the Ministry of Health and the Government of the Republic of Ghana.[4] Following this need, the governments have introduced various interventions in the country to encourage safe motherhood i.e. free maternal health services in the antenatal, post natal period and during labour. Even though all these interventions are consistently implemented all over the country, women still deliver at home or do not just attend antenatal and post natal services. The high rates of home deliveries may be responsible for infants and maternal deaths as safety of the deliveries within the homes cannot be guaranteed in a low socio economic settings.

Maternal health indicators is one of the indices used by development expects, governments and public health officials in assessing the health sector performance. Continues delivery of women in rural areas outside the confines of a health facility acts as a barrier in improving these indices. The community health planning and services (CHPS) concept was lauded, accepted and implemented by Ghana: with the hope that health services has been brought to the door step of the people and more people were likely to patronise these services. In Bunkpurugu Yunyoo district however, more women still deliver at home even though they attend both antenatal and post natal care services. This manuscript determined the community factors that prevent women from giving birth in the health facility. These factors are commonly categorized as 'unnecessary' and 'not customary' in large quantitative assessments including the demographic and health surveys indicating the importance of using mixed method approaches to get a more complete picture and design more specific educational messages.

Problem statement

Bunkpurugu Yunyoo district has five (5) sub districts: Bunkpurugu, Nakpanduri, Binde, Yunyoo and Nasuan sub districts. Bunkpurugu Yunyoo district has 23.5% of the population been women in reproductive age with 2.8% annual expectant pregnancy rate.[5] Many women are able to attend antenatal and post natal care services but deliveries occur mostly at home. The 2013 annual health sector report of the district revealed that 62.3% women attend at least four ANC services during pregnancy with an average number of ANC attendances at 3.5. The report further indicates that in 2013 the number of supervised deliveries were 37% of all deliveries. Post natal care attendances were at 90.1% in the same year.[5] What therefore are the community factors in the district that are responsible for the high numbers of home births?

For Ghana to achieve the sustainable development goal - about improvement and access to quality health care services by all in 2030, conscientious efforts needs to be channelled towards the reduction of maternal and infant mortality as well as the empowerment of women towards sustainable development. Sustainable development includes addressing equity issues and ensuring safe maternal and infant health: getting safe motherhood. Many mothers in Ghana are yet to experience the assuring experience of giving birth outside the confines of their homes under the supervision of a skilled health worker who understands the intricacies of pregnancy and child birth. Culture and the influence of the traditional birth attendant concerning child birth in Ghana are having some negative repercussions on childbearing.[3] While women do not get the optimum care for giving birth in the health facility, the worst scenario is the lack, or unavailability of these services to rural folks or the non-use of these services of the modern orthodox health practitioners.[3] These negative health indicators in rural Ghana and the inability of expectant mothers to use modern orthodox health facilities greatly hinder on improving health care delivery. To mitigate this, empirical research in understanding the sociocultural, environmental and livelihood challenges that are encountered by rural folks in seeking these health care services is imperative.

Objective

This study identified the factors that are accountable for high numbers of home deliveries in the Bunkpurugu Yunyoo district.

METHODS

Study design

This was principally a qualitative study as information obtained from participants was largely textual. The study by Solomon et al revealed that some of the important reasons for preferring home over facility based delivery

cannot be captured in the usual structured questionnaires of community based surveys - emphasising the very essence of using mixed method studies.[6] Some aspects of the study elicited quantitative data as the number of persons or responses to a particular variable was made use of through descriptive statistics. The specific study design adopted was cross sectional study as data was taken from participants only once.

Study settings

The study was conducted in the Bunkpurugu Yunyoo District, which is located in the north eastern part of Ghana. The District shares borders to the upper east region, republic of Togo, Gusheigu and the East Mamprusi Districts to the north, east, south and west respectively. The population of Bunkpurugu/Yunyoo is estimated at 153,329 with an annual growth rate of 3.1%[7]. This is made up of 73,598 males and 79,731 females constituting 48% and 52% respectively. The average density of population is 59 persons per square kilometre of the total land mass[7]. There are one hundred and ninety one (191) communities in the District. The Average household size is 6.9 (GSS, 2012). The Bunkpurugu Yunyoo District is largely a rural community. At the moment the District has few health facilities and cannot boast of a fully functional hospital. There is no single resident medical officer in the District. Indeed Registered Nurses in the District as well as midwifes are just few.[5] According to the district annual report (2013) number of supervised deliveries were 1346 (37%) of all births.

Population

The study population comprised of women of child bearing age from 15-49 years and midwives or general nurses who conduct labour and have in-depth knowledge on the factors accountable for home deliveries in a low income rural setting. The target populations were women who had had a recent delivery within the last year prior to the commencement of the study and health care providers within the district who are involve in the conduct of labour or assist women to deliver. Using estimates from the 2013 annual health sector report of the district, women who gave birth are (Expected pregnancy rate of 2.8%) 3,740 mothers

Sample and sampling technique

Purposive sampling method was used to select four health posts/ centres/clinics from a frame of twenty (20) immunization posts or health institutions. The four health centres or clinics selected for the study were sparsely distributed in the district and included the Bunkpurugu health centre, Bendi health centre, Faith community Health centre (Nakpanduri) and Yunyoo health centre representing each sub district. All the women attending the health facilities – post natal clinic (PNC) on a specified day and meeting the set criteria (delivered within the last year i.e. 1st June 2014 to 31st May 2015) were selected to respond to a questionnaire. In all women, who consented to take part in the study, were interviewed using the questionnaire. In total three hundred women were assisted to or made to complete a research questionnaire depending on their ability to read and write.

Health care practitioners were selected and interviewed based on their in-depth knowledge on the study area and topic. Health workers purposely selected for this study were midwives and registered general nurses who conduct labour within their facilities. In total three midwives and one registered general nurse was engaged in an in-depth interview.

Data collection and analysis

A semi-structured questionnaire (interview guides) was developed. Interviews using the questionnaire were carried out with all women who willingly consented to be part of the study. Midwives and registered general nurse were engaged in an in-depth interview sessions to understand the cultural and traditional factors that influence the occurrence of home births in the district.

Data was transcribed verbatim and read through severally. The views and opinions expressed were syphoned and grouped. Grouped information was then assessed for patterns as these patterns corresponded to specific themes as it falls in tandem to the study objective. Simple narratives from the transcribed data also serve as a basis for illustration of the findings. Statistical package for social sciences (SPSS) version 20 was used for analysis of quantitative data. Simple descriptive statistics using proportions served as the basis for analysing quantitative data. There was also an integration or fusion of the qualitative and quantitative data to create an understanding of the factors that influence home deliveries in the Bunkpurugu Yunyoo District and rural Districts for that matter.

Ethical considerations

A letter and the research proposal were submitted to the District Health Management Team (DHMT). The team constituted a committee that reviewed and approved the study to be conducted in the district. The essence of the study was explained to each participants and informed consent obtained. Respondents who were less than 18years had their spouse or parent consent before they gave assent for the study. Participants who opted not to take part in the study were exempted but this did not influence the care they deserved.

RESULTS

Women were recruited for this study when they came for post natal care services. All the women for the study have attended ANC at least once during this gestation. The rate

of ANC visits varied among pregnant women as it was revealed that 1.6% of pregnant women attended ANC once, 12.9% between two to four times, 22.6% attended at least five times and the remainder attended more than five times. The rate of attendance of ANC services was not surprising to health care professionals. Supporting the reasons for high ANC and PNC attendances, a midwife stated:

"Yes they access these services because we have many community health nurses compared to other professionals, and they are able to send the services to the door step of the people. Sometimes they can even give ANC services on the farms or fields of beneficiaries……. so we will always have those (referring to pregnant women) *attend ANC"* (Field data, 2015).

Table 1: Distribution of demographic characteristics of respondents.

Variables	Distribution	Percentage
Sub district	Bunkpurugu	37.1
	Bendi	16.1
	Yunyoo	14.5
	Nakpanduri	32.3
Age distribution	15 - 21	6.5
	22 - 26	32.3
	27 – 31	21.0
	32 - 37	27.4
	38 - 43	12.9
Marital status	Married	91.5
	Single	8.5
Ethnicity	Bimobas	59.7
	Mamprusis	14.5
	Komkombas	11.3
	Others (Kusasis, Busangas, Fulanis, Frafras Etc.O)	14.5
Highest level of education attained	Elementary	29.5
	Junior High School	16.4
	Senior High School	19.7
	Tertiary	8.2
	Non-Educated.	26.2
Distribution of religious affiliation	Christians,	72.6
	Muslims	19.4
	Traditionalist.	8.1
Place of last delivery	Health Facility	71.7
	Home	28.3

The Bunkpurugu yunyoo district has a proportionally high number of community health nurses compared to the other cadre of professionals. Largely, community health nurses are those who provide ANC and PNC services to women and babies unless there is the need to seek more professional care services.

The antenatal period is when pregnant women are expected to make a decision on the place of delivery and the mode of delivery of their baby. Health care professionals assist pregnant women in making these choices. Before the birthing period ensues, most pregnant women would have decided where and when they intend to deliver. Most (91.1%) of the pregnant women indicated they had a place they intended to give birth. Corroborating these views, the midwives were firm in their response:

"Yes they had a place they want to give birth, when they come, we ask them and almost all of them will tell you they intend to give birth in the health facility. They all want to deliver in the hospital……" (Field data, 2015).

With increasing knowledge and the high ANC attendance exhibited, most (93.2%) of the pregnant women preferred the place of delivery to be the health facility. Pregnant women are usually educated during this period that the modern orthodox health facilities provide comprehensive and standard health care services that reduce significantly risk posed to them and their babies. Most pregnant women intended delivery in the health facility:

"Yes, they usually will want to give birth in the health facility. But in real practice they are not able to do so. I sometimes believe some go in to labour by surprise and are ill prepared for the labour hence their plan of place of delivery is not well executed."(Field data, 2015)

Intentions of place of delivery do not eventually translate in to place of delivery. A good proportion (52.7%) of those with intended place of delivery had their labour occur at a place they did not intend and eventually they did not birth at a place their choice. Women interviewed ascribed broad and varied reasons for having their delivery outside the place they envisioned. Some women cited lack of transport and bad road network (9.0%), long distance to health facility (27.3%), sudden onset of labour (22.7%), family not willing to support while in the hospital (10.0%). The rest of the respondents did not have any specific reasons for delivery outside the hospital. Intriguing is the fact that women in the post natal period and health care providers (interviewed midwives and general nurse) do not identify cost as a major barrier to service delivery or the reasons for home deliveries:

"Most people including pregnant women are on the national health insurance scheme (NHIS) already. Also the free maternal component of the NHIS caters for most hospital bills of women in labour". (Field data, 2015)

The lack of health facilities in the district was also cited as one other reason for the high incidence of home births. A nurse at the Yunyoo facility (located in the south western segment of the district) stated that:

"Yunyoo and its environs have one health centre at Yunyoo and one CHPS compound at Mozio. These facilities are ill equipped both in logistics and personnel…. Just imagine how these very few facilities

can be helpful to this large rural population they are expected to serve" (Field data, 2015).

Majority of the nursing mothers at the post natal clinics (72.6%) indicated that there are no traditional factors or taboos that affects or influence the place of delivery of women in the area. The remaining 27.4% indicated that there are traditional factor that influences the place of delivery. Women in the south western segment mainly from the Yunyoo health centre who were largely Kokombas stated that it is a taboo for a royal to be born outside his or her home and hence it is difficult to have a hospital delivery. The midwives interviewed did not identify cultural and traditional factors that deter hospital delivery. A midwife at the Bunkpurugu health centre summarised her view when she said:

"I do not think religion or any traditional habit deters women from delivering in the hospital. Placenta or after birth is usually given back to relatives: to decide what to do with it. Most of them do not even buy pad. Rather they use clean rags to pad themselves. We try to make our services culturally friendly as possible" (Field data, 2015).

The social factors that influence home deliveries included; the belief that labour will not keep long or be painful (8.3%), will prefer to use herbs during the labour (12.5%), culture praises women who give birth at home (25.0%), some women who have FGM will not want to give birth in the hospital (25.0%) and some taboo hospital delivery (29.2%). The views of midwives echoed that which was mentioned by the women i.e.:

"Some belief that labour is a normal occurrence: and will not take a longer period and or will not be so painful……. Others solely rely on traditional medicines believing that is more effective than modern medicine" (Field data, 2015).

Enumerating who attended to each woman during their last delivery 71.0% were TBA, 11.3% midwife, nurse or doctor, 16.1% family member and 1.6% any person.

"The TBAs level of knowledge and skill cannot be measured and we cannot therefore let our mothers, wives and sisters entrust their lives to them in this very critical moment that supposed to be joyful" (Field data, 2015)

DISCUSSION

The respondents were distributed within the reproductive age groupings with a minority (6.5%) been 15 to 21years. The modal age distribution was 22 to 26 years with half (50.0%) having a child or two. The Ghana statistical service, 2014 in district analytical report, stated that the total fertility rate (TFR) for the district is 3.77- which are slightly higher than the northern Regional average of 3.54. A Good proportion (26.2%) of participants has not had any form of formal education. Most of the women are not engaged in formal employment as 27.4% are farmers, 32.3% traders, 11.3% housewives and the remainder in school or formal employment.

The proportion (71.7%) of home births is very high in the district as was alluded to in the 2013 and 2012 annual District Health Management Team (DHMT) reports. The DHMT stated that, the proportion of home births are high yet most of the women (90.1%) actually accessed post natal services.[5] Antenatal care service is a cardinal intercession in the success of a pregnancy. A pregnant woman in Ghana is expected to have at least four ANC attendances before delivery. All the respondents did attend ANC during pregnancy. The most important observation is that women are not challenged in accessing ANC services in the district. This is because ANC services are readily available at CHPS compounds, immunisation post and during outreach or home visit services. The comparative large proportion of community health nurses in the district largely makes this a success. The 2013 annual health sector report of the district revealed that 62.3% women attend at least four ANC services during pregnancy with an average number of ANC attendances at 3.5.[5]

Using retrospective data from the 1998 and 2003 Demographic and Health Surveys Amoako et al 2009 noted that more than one-half of births in Ghana continue to occur outside health institutions without any skilled obstetric care.[9] Planning for a birth is important in the general outcome and the success of a pregnancy. Planning include having a place of delivery, means of transport and the attendant during labour. Women wanted to have their births in the hospital. This assertion is made less rigorous following the good interventions of the ANC services prompting women to plan towards child birth. The wish for a place of delivery did not matter as long as pregnant women will be assured of a safe and successful delivery. During pregnancy resources of the pregnant woman and family are vested towards planning for labour and these resources are channelled towards a specific course and when labour occurs away from where these resources are aggregated then there is small probability of this been useful to the woman and her unborn child. The place of delivery may however differ between couple as Leslie et al 2015 reported that Birth delivery location preferences were split for mothers (home delivery–9; facility delivery–11), and fathers (home delivery–7; facility delivery–11).[8]

A very key component responsible for delivery outside the health facility is the lack of these facilities. Inequitable distribution of health facilities making large geographical areas to be contained by few facilities is a common occurrence. The south western area is the most affected in the district. The situation is so staid in the Mozio Yunyoo area (Mozio to Yunyoo covers over ten communities and about 20 kilometres apart). Yunyoo to Mozio are generally farming communities and are very remote with very poor telecommunication network, no

ambulance services and no accessible roads. The area is littered with many villages and hamlets spreading through these two major villages. Leslie et al 2015 concluded that Safe pregnancy and childbirth interventions should be tailored to the birth location preferences of mothers and fathers, and should include education on the development of birth preparedness plans to access timely delivery related care. Improving access to and the quality of care at health facilities will also be crucial to facilitating use of facility-based delivery care in rural Ghana.[8]

Cultural and traditional practices are highly patronised. With these cultural antecedents, the area is more prone to harsh situations associated with home births. The large majority of the home births actually were supervised by the TBA in the home of the woman. Traditional birth attendants are not regulated or have not received any form of formal specialised training and the services they deliver cannot therefore be guaranteed of the requisite quality. These TBAs are willing to come to the homes of even women and assist them to give birth. They are generally culturally sensitive and succumb to the plight of the women and their families. Assessing the role played by the care giver during home births especially the TBAs, Ana et al 2012 argued that much is still unknown about the attendants at these home births, particularly in regards to their training, delivery practices, access to medical equipment and testing, and their interaction with the formal health care system.[1] Leslie et al identified two patterns of preferences and birth outcomes: 1) preference for homebirth that resulted in delayed care seeking and was likely associated with several cases of stillbirths and postpartum morbidities; 2) Preference for health facility birth that resulted in early care seeking, and possibly enabled women to avoid adverse effects of birth complications.[8]

CONCLUSION

Several factors are responsible for the high numbers of home deliveries in the Bunkpurugu Yunyoo district of the northern region of Ghana; generally a low income rural setting. The study identified that women have intended place of delivery and during pregnancy wish for a safe delivery but are taken to labour when they are ill prepared making them not to be able to deliver at the place they intended - mostly a health facility. Poor road network, sudden onset of labour, lack of transport system, poor family support and lack of health or inequitable distribution of health facilities were responsible for women delivering outside the health facility. There are cultural factors that deter or influence women to have their delivery in the health facility. Some of these important cultural factors included the stigma from FGM, the belief that strong women deliver at home and taboos for certain children (generally royals) to be born at the health facility. Another key finding was the fact that cost of labour services did not deter women from having facility based delivery since the NHIS provided cost relieve to beneficiaries.

To reduce the impact of having a home birth and the general risk it poses to the mother, family and the unborn baby, it is imperative that requisite measures are instituted to forestall this general mishap. Modification of certain factors including the following will help in this regard.

Midwives and health care providers should enhance public education through the mass media and community durbars or during home visits and encourage women during antenatal visits to come and deliver within the health facilities.

Government together with local government authorities should improve on transport systems leading to health facilities especially for pregnant women during labour.

The study identified women prefer deliveries to occur in the health facility and are usually taken by surprise during labour. Ghana health service (GHS) and the district health management team (DHMT) should ensure women undertake ultrasound services in the first trimester of pregnancy to estimate the expected date of delivery so that they move near the health facility to receive care during labour.

Ministry of health Ghana should provide accommodation attached to CHPS compounds or clinics to serve as a waiting area for women who are at term to stay in as they wait for the onset of labour.

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REFERENCES

1. Ana G, Elizeberth MM, Elwyn C, Archana, P, Omrana P, Antoinette T. Home birth attendants in low income countries: who are they and what do they do? BMC Pregnancy and Childbirth. 2012;12:34.
2. Wendy C, Anneleen G, Piet, B. Does a referral from home to hospital affect satisfaction with childbirth?

A cross-national comparison. BMC Health Serv Res. 2007;7:109.
3. Gumanga SK, Kolbila DZ, Gandau BN, Munkaila A, Malechi H. Trends In Maternal Mortality In Tamale Teaching. Ghana Med J. 2011;45(3):105–10.
4. Ghana demographic and health survey 2013; Ghana statistical service (GSS) 2013.
5. Ghana Health Service. Annual Report 2013.
6. Solomon S, Mark S, Mrigjn G, Yilma M, Micheal, T. Why Do Women Prefer Home Births In Ethiopia? BMC Pregnancy Childbirth. 2013;13:5.
7. Ghana statisticals service. 2010 population and housing census. Ghana Statistical Service. 2011.
8. Leslie EC, Clare B, Kavita S, Sodzi S, Akalpa A. Birth location preferences of mothers and fathers in rural Ghana: Implications for pregnancy, labor and birth outcomes: BMC Pregnancy Childbirth. 2015;15:165.
9. Fiifi AJ, Sabu SP, James JB. On the Spatial Inequalities of Institutional Versus Home Births in Ghana: A Multilevel Analysis. J Community Health. 2009;34(1):64–72.

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