ORIGINAL RESEARCH ARTICLE

Shifting norms: pregnant women's perspectives on skilled birth attendance and facility–based delivery in rural Ghana

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Abstract

Skilled birth attendance (SBA) and healthcare facility (HCF) delivery are effective means of reducing maternal mortality. However, their uptake remains low in many low-income countries. The present study utilized semi-structured interviews with 85 pregnant women attending an antenatal clinic in Akwatia, Ghana (May-July 2010) to better understand the barriers to SBA and HCF delivery through the underrepresented perspective of pregnant women. Interview transcripts were analyzed using grounded theory methodology. Participants described community support for and uptake of HCF delivery as increasing and becoming normalized, but barriers remain: (1) maltreatment by midwives; (2) cost associated with HCF delivery despite waived facility fees; (3) the need for a support person for HCF delivery; (4) difficulties in transportation; and (5) precipitous labor. Given the importance of community in Ghanaian health care decision-making, increasing community support for HCF delivery suggests progress toward increasing uptake of SBA and HCF delivery, however important actionable barriers remain. (*Afr J Reprod Health 2013; 17[1]: 15-26).*

Résumé

Les services des accoucheuses qualifiés (SAQ) et des établissements de santé (SES) sont des moyens efficaces de réduire la mortalité maternelle. Cependant, leur acceptation reste faible dans de nombreux pays à faible revenu. La présente étude s'est servie des entretiens semi-structurés recueillis auprès des 85 femmes enceintes qui fréquentaient un dispensaire prénatal à Akwatia, Ghana (entre les mois de mai et juillet 2010) afin de mieux comprendre les obstacles à la prestation des SAQ et SES à travers les perspectives sous-représentées chez les femmes enceintes. Les transcriptions des entrevues ont été analysées en utilisant une méthodologie basée sur le « grounded theory ». Les participants ont signalé que le soutien communautaire pour l'accouchement dans les SES et de l'adoption des SES augmentent et se normalisent, mais que des obstacles demeurent: (1) les mauvais traitements infligés par des sages-femmes, (2) le coût associé à la prestation des SES en dépit des frais d'établissement supprimés; (3) la nécessité d'une personne de soutien pour l'accouchement dans les SES, (4) des difficultés de transport, et (5) du travail précipité. Compte tenu de l'importance de la communauté concernant la prise de décision en matière de soins de santé au Ghana la hausse du soutien communautaire pour l'accouchement dans les SES est une indication du progrès vers l'utilisation croissante de la prestation des SAQ et des SES mais il reste toujours d'importants obstacles réalisables (*Afr J Reprod Health 2013; 17[1]: 15-26).*

Keywords: qualitative, grounded theory, childbirth, delivery location, sub-Saharan Africa

Introduction

The United Nations Millennium Development Goal Five (MDG5) set a target to reduce maternal mortality by three-quarters between 1990 and 2015[1]. However, as we approach 2015 data from sub-Saharan Africa suggests we are just a third of the way to achieving MDG5. Statistics from the 2011 Millennium Development Goals Report for sub-Saharan Africa report 640 maternal deaths per 100,000 live births—a decline of 26% from 1990, and a death rate 50-fold higher than that reported by high-income countries[1,2].

Skilled birth attendance (SBA) is widely accepted as the "single most important factor in preventing maternal death"[3]. SBA is characterized by two criteria: the attendant and environment[4, 5]. The attendant must be present during labor,

delivery and postpartum, and be trained to manage normal deliveries and refer complications. Additionally, the environment must be "enabling," such that the laboring woman has the support necessary to access a sufficiently equipped health care facility (HCF) as needed[4, 6]. In low-income countries, the scarcity of resources often means HCF delivery is a necessary condition for SBA[7, 8]. Though many high-income countries have achieved rates of SBA well above 90%, in low-income countries median skilled birth attendance is 50%, contributing to the 52 million births that occur each year without a SBA[9, 10].

Numerous barriers to SBA at deliveries have been reported. Chief among these are the shortage of SBA personnel and the inaccessibility of emergency obstetric care in rural areas[11]. Numerous studies have explored "determinants" of childbirth location quantitatively by retrospectively analyzing the association of demographic factors with the location of a woman's last birth. In sub-Saharan Africa, home birth has been associated with the following: increasing parity, lack of formal education, poor accessibility of facilities, rural residence, low socioeconomic status, traditional religions, and lack of female autonomy[7,12,13,14,15,16,17,18,19,20]. In turn, delivering with SBA has been associated with being advised during antenatal care (ANC) clinics to deliver at a facility, increasing number of ANC visits, knowledge of pregnancy risk factors, discussing the place of delivery with one's male partner, positive perceptions of the quality of care at facilities, use of modern family planning, and complications during a previous pregnancy[7, 21].

These data suggest potential causal pathways influencing delivery location, but fail to account for local perspectives. Understanding users' and providers' perspectives—and the nuances often missed in standardized questionnaires—is paramount in developing programs and policies that are both effective and appropriately designed for the target communities. Qualitative work from sub-Saharan Africa suggests that cultural beliefs about pregnancy, childbirth and women's status, spiritual beliefs, economic constraints, the physical accessibility of HCF, familial involvement in decision making, the relative weight of women's social obligations, and the quality, social acceptability and perceived efficacy of care contribute to the determination of delivery location[22,23,24,25,26,27,28,29,30,31,32]. In addition, qualitative literature has suggested that—contrary to findings in much of the quantitative literature—attending ANC does not necessarily translate to increased HCF delivery. Instead, being told one's pregnancy is 'normal' during ANC may lead women to believe they will be able to deliver at home without incident[22, 27,33].

Ghanaian Context

Ghana, in sub-Saharan Africa, has one of the most advanced health systems in Africa and a history of strong support for maternal health initiatives[35]. In the 1990s, fee exemptions for ANC were enacted[34]. Since 2008, pregnant women have been exempted from paying national health insurance enrollment premiums and are not charged facility fees for maternity care from the first ANC visit through three months postpartum[35]. Despite this, maternal mortality in Ghana exceeds 451 deaths per 100,000 live births[1]. Data from 2003 found that just 43.5% of women delivered in a HCF and less than half of all births were attended by a SBA[36]. The most recent estimates from 2008 suggest that although 95% of women in Ghana now receive ANC from a skilled provider, non-facility deliveries continue to occur at high rates; 41% of deliveries in Ghana occur without SBA and 43% of births occur outside a HCF[37]. 30.3% of Ghanaian births are reported to be attended by traditional birth attendants (TBAs), accounting for a large majority of non-HCF delivery[37]. Ghanaian TBAs have traditionally been well-respected older women in the community who are embraced for their years of experience, wisdom, service to the community and empathy for laboring women[22]. Previous work in Ghana has suggested that women achieve higher social position following delivery, particularly if they are stoic and received little skilled assistance[22, 29].

In Ghana, the perspectives of mothers post-delivery, fathers, community leaders, health care providers and TBAs in relation to childbirth location have been explored (see Table 1).

Table 1: Qualitative studies regarding childbirth location determinants in Ghana

Author(s), Location	Methodology	Findings Related to Delivery Location Determinants
The Prevention of Maternal Mortality Network, 1992 Multi-country: Ghana (Accra, Kumasi), Nigeria, Sierra Leone	184 FGD with providers and community members.	Barriers impeding the utilization of HCF for complications: (1) Cultural and social factors: vary by country, pregnancy is natural, varying recognition of signs of complications, reaction to complication are tied to perceived cause, women's status, fear HCF will impede on societal expectations for women in labor, traditional treatment delays utilization of HCF (2) Accessibility factors: physical distance, transportation, road infrastructure, direct and indirect cost, social distance between client and HCF (3) Health-service factors: lack of supplies/equipment/medicine/staff, poor treatment by staff, bribery, insufficient communication with community.
Mills & Bertrand, 2005 Kassena-Nankana District, Ghana	18 FGD with women who delivered in the last five years, TBAs, and community leaders.	Participants were knowledgeable about signs of pregnancy complications and preferred HCF delivery if complications were detected. (1) Traditional Beliefs and Practices: many "traditional practices" associated with labor and deliveries were described as no longer in use. HCF is ultimate source of obstetric care. (2) Decision making: delivery location was decided after the onset of labor unless identified as a high risk pregnancy. Husband often makes delivery location decision—compound head has final say, some women decide on their own, sometimes a "soothsayer" is consulted. Cost associated with HCF delivery is a deterrent. (3) ANC: is only provided by HCFs, necessary for safe delivery, and is used to determine if pregnancy is normal. (4) Birth preparedness: preparation is essential—gather items and set aside money. (4) Professional obstetric care: women deterred by bad attitudes of midwives and felt embarrassed of their poverty. Cost of transport and items for delivery was prohibitive. Those with previous complications and prima graves should have HCF delivery.
D'Ambruoso, Abbey, Hussein, 2005 Accra suburbs, Ghana	2 FGD & 21 SSI with women who had delivered with a health care professional in a HCF in the last 5 years.	Factors affecting choice of delivery location: staff attitudes, perceived ability to achieve successful outcome for mom and baby, cost, access, recommendations by peers, previous experiences, general environment of HCF, administrative arrangements, knowing a person who works at the HCF, proximity of HCF to family, and privacy.
Jansen, 2006 Kwame Danso, Ghana	Ethnographic interviews and participant observation of 5 non-medical trained TBAs.	Beliefs related to childbirth: (1) Childbirth is natural: "smaller" complications can be treated at home, whereas "deadly" complications should be treated at the HCF. Complications often explained as socially caused. (2) The economy: macro level poverty and poor transportation deter HCF care. Inability to afford ANC and HCF delivery—choosing just one results in criticism/abuse by HCF staff, but will go to HCF despite fears if perceived need. (3) Spirituality: curses can cause delivery problems. The placenta is sacred. (4) Social roles: the childbirth process involves the family and community; women gain status through delivery, women who disregard delivery advice face social stigma. There is a reverence for elders' advice. TBAs have high social status.
Bazzano et al., 2008 Kintampo District, Ghana	In-depth interviews with 14 elderly women, SSI with 45 mothers, 28 case histories of recent births, 13 mixed-sex FGD, and participant observation.	Pregnancy is kept secret for as long as possible; perceived as a dangerous and vulnerable time. Confusion regarding HCF costs and the expense of mandatory delivery supplies are a deterrent. Few women intended to deliver at HCF and majority delivered at home. Delivering alone increases social status. Dishonesty of women regarding father of the child cause delivery complications. Overall expression of fear of medical interventions. Felt need to manage early labor alone—women punished for arriving at HCF too early. Elderly women, TBAs, and husbands make care decisions. Poor treatment at HCF by staff.

FGD: focus group discussions, SSI: semi-structured interviews, HCF: health care facility, TBA: traditional birth attendant, ANC: antenatal care

However, there has been a notable lack of attention paid to the perspective of pregnant women—the very people whose lives are at the center of international efforts to increase SBA. Given the high maternal mortality rate, the large discrepancy between the nearly universal use of ANC by pregnant women and the drastically lower rate of HCF delivery, this study explores the beliefs and experiences of pregnant women seeking ANC, in an attempt to better understand how efforts to increase SBA and HCF delivery can be improved.

Methods

All study protocols and instruments were reviewed and approved by the institutional review boards of the Universities of Michigan and Ghana. The consolidated criteria for reporting qualitative research (COREQ) were adopted to guide this study[38].

Grounded theory, which is a qualitative approach for collecting and analyzing data without imposing previously constructed theoretical frameworks, was used to guide both the study design and analysis[39, 40]. A grounded theory approach was used to capture participants' rich lived experiences and perspectives, without presuming their input would accord with existing, often westernized theories. By providing women with a forum to share their experiences and perspectives we gain an understanding of the raw lived experience of pregnant women. Moreover, this inductive approach, and emphasis on real-world experiences gives pregnant women a voice in driving future interventions and policies.

Study Setting

Data were collected from May through July of 2010 at the St. Dominic's Hospital Antenatal Clinic in Akwatia, Ghana. Akwatia is a rural town of nearly 20,000 people in the Eastern Region of the country, approximately 70 miles northwest of the capital city of Accra. Akwatia is best known as the diamond extraction center of Ghana. St. Dominic's Hospital is a Catholic mission hospital run by the German Dominican Sisters. The hospital is a 356-bed facility accredited for the training of Ghanaian residents in obstetrics and gynecology. In 2009, St. Dominic's reported 10,456 ANC visits, 2,904 deliveries and a maternal mortality rate of 253 per 100,000 live births (Unpublished data: St. Dominic's Year End Report, 2010). St. Dominic's is a major regional hospital accessed by residents of Akwatia as well as surrounding communities; in the present sample participants' self-reported travel time to St. Dominic's ranged from 4-180 minutes (mean: 46 minutes).

The St. Dominic's Hospital ANC clinic typically runs between 7 AM to 2 PM. There is no appointment system. Women who present for ANC typically spend most of the clinic's open hours in various clinic-related activities. For all attendees the day starts off with a group prayer, then a lecture on a pregnancy-related topic, a review of the items women are expected to bring with them for delivery in a HCF, and individual assessments including: abdomen palpation, measurement and auscultation. Women also have their temperature, blood pressure, weight, conjunctiva, hemoglobin, and urine checked.

Data Collection

Participants were a convenience sample of pregnant women presenting at St. Dominic's Hospital for ANC. Enrollment criteria included women who: (a) were at least 18 years of age; (b) were listed as 27 or more weeks pregnant on their antenatal card; and (c) did not need emergent medical attention. ANC staff explained to ANC attendees that researchers were present who were interested in learning about pregnancy women's thoughts on pregnancy. A local female midwife-nurse-translator (DN) subsequently invited ANC attendees to participate in the study following their ANC exam. Sampling continued until interviews failed to reveal new information[36].

Interviews were conducted face-to-face in a private room adjacent to the ANC clinic. Potential participants were presented with a written consent form in Twi (a local Ghanaian language) or English. The local midwife-nurse-translator (DN) explained the consent form, and gave participants a summary sheet with researchers' contact

information. Signed consent forms were collected. Interviews were conducted in three languages: English, Twi and Ga, according to the interviewee's preference. Interviews in English were conducted by an English-speaking Caucasian-American female graduate student (HC), with an African-American female university student (KC) taking notes and the local female nurse-midwife-translator (DN) present. All three were trained in qualitative interviewing techniques. Some participants recognized DN as a midwife in the St. Dominic's labor ward; all participants were informed that DN was a midwife and that HC and KC were students from the United States working with the University of Ghana. DN translated questions verbatim from HC into Twi and Ga. Responses were immediately translated back into English verbally by DN.

When consent was sought, one refusal was recorded (time constraints cited) and two potential participants were excluded based on age (less than 18 years old). Of the 85 interviews, 83 were audio-recorded (one participant did not consent to audio-recording and one recording was lost due to equipment failure).

Interviews were conducted using a semi-structured interview guide with open-ended questions about participants' experiences with ANC, previous deliveries, their current pregnancy, and their pending delivery. The tenants of grounded theory were used to guide the construction of the semi-structured interview. As such, participants were asked about their thoughts on pregnancy care, SBA and delivery location, but were not prompted regarding any preconceived potential barriers or motivating factors influencing delivery location (for a sample of the interview guide questions see Table 2). HC, KC and CM developed the interview guide, which was refined by RA and DN, and pilot tested with three women seeking ANC at St. Dominic's. Basic demographic information was also collected.

Interviews averaged 19 minutes in length (range: 9-35 minutes). English translations were transcribed verbatim from the audio-recordings (HC, KC). The resulting transcripts were used for the present analysis.

Table 2: Sample interview guide questions

"(if multigravida) Where have you delivered in the past? Tell me about your experience laboring and delivering there."
"Ideally where would you like to deliver your current pregnancy? Why would you like to deliver there? What worries you about delivering there? What do you think delivering there will be like? Are there any circumstances that would make you want to deliver elsewhere?"
"Many Ghanaian women do not deliver in health care facilities. Why do you think that is?"

Data Analysis

Data were imported into NVivo 9 software (QSR International; Melbourne, Australia). Transcripts were initially read through and open coded (HC) as described by Charmaz (2000). The text was read again and categorized into focused, conceptual nodes based on the emergent categories identified through open coding. Memoing was used to record the thoughts and ideas of the research team throughout the coding process. Theoretical nodes were systematically compared, contrasted and iteratively refined (HC, CM, CE). Core concepts and linkages were explored and discussed by the team. The goal of the analysis was to identify core themes through the qualitative analytic technique of coding transcripts. Themes were contextualized with regard to their relation and implications to the central phenomenon of pregnancy care. Consensus was reached through team meetings (HC, CM). Disagreements were resolved by returning to the data for further examination and clarification.

Results

Interviews were conducted with 85 women ranging in age from 18 to 41 years. We have reported other demographic details elsewhere[41]. In summary, over two thirds of women had one or more previous children and the average gestational age at the time of interview was 33 weeks. Approximately 61% of participants reported at least one previous HCF delivery and 11% reported at least one previous home delivery.

Pregnant women's stories contrasted increasing endorsement and embrace of HCF delivery with the previously more culturally acceptable practice of non-HCF delivery with TBA assistance. Despite participants' perception of shifting norms, their narratives revealed the persistence of important barriers to HCF delivery.

Shifting Norms

Central to participants' narratives was the perception of a strong shift toward community endorsement of the biomedical model of pregnancy and delivery care. Although participants openly commented on the systems imperfections, they unanimously expressed a preference for HCF delivery over delivery at home or with a TBA. Moreover, participants described this preference as reflective of the nascent norm in their communities; women described a palpable shift in community support for, and uptake of, HCF delivery. *"Of late it's not like at first, they [women in the community] used to deliver in the house, of late they do come to the hospital to deliver (34 y.o., no previous deliveries)."*

Community leaders, husbands and mothers of pregnant women, were described as previously impeding women from accessing HCF delivery. However this scenario was reported to be changing among women presenting for pregnancy care in Akwatia. Women described knowledge of the benefits of HCF delivery as spreading: *"…women were dying of pregnancy. The mortality rate was high, but right now the education has gotten to so many, so they come to the hospital so that they will not lose their babies or themselves (29 y.o., no previous deliveries)."* While one participant described having had a previous home delivery as a result of her mother's wishes, participants currently depicted influential community members as promoting facility delivery: *"Before my mother was having home deliveries but she [has] seen that it is good to deliver at the hospital. So now she won't allow any of her children to deliver at home (25 y.o., 2 facility deliveries)."* Another participant recalled her mother telling her: *"Home delivery is not safe" (23 y.o., 1 facility delivery).* Community groups including churches were also cited as advising women seek a HCF delivery: *"The church I am attending advised us not to deliver at home… that's why I want to deliver at the hospital (20 y.o., 1 previous home delivery)."*

Decreased subscription to traditional pregnancy and delivery practices was attributed to a heightened awareness of the dangers of pregnancy and delivery, and to a rising belief in the ability of SBAs in HCF to mitigate those dangers. Women referenced HCFs as the only place where "hidden illnesses" or complications could be detected: *"If something is going wrong and they [pregnant women] stay home they can't detect it, but if they come to the hospital the midwife will detect it and know what to do (30 y.o., no previous deliveries)."* A participant with four previous TBA-assisted home deliveries suggested there was no source of "help" outside of HCFs: *"At home if you deliver you can't get help from anywhere… so I have to come to the hospital (31 y.o., 4 home deliveries)."* Primigravidas expressed similar thoughts on non-HCF pregnancy care despite their lack of previous experience: *"You can't help yourself. You have to come to the hospital (19 y.o., no previous deliveries)."* Even women who experienced poor pregnancy outcomes after delivering at a HCF endorsed facility-based care as preferential over non-HCF delivery; one participant who had only one live child from four previous births at HCFs said: *"They [health care facilities] have all the facilities and if something is going wrong they can help me (32 y.o., 4 previous facility deliveries)."*

All participants stated that they intended to delivery in a HCF and many participants verbalized a strong determination to actualize their intentions: *"I will come by all means (33 y.o., 2 facility deliveries)"* and *"There is no way I will deliver at home (26 y.o., no previous deliveries)."* Citing the potential for complications, participants with a history of cesarean section or complications were particularly adamant about their intentions to deliver in a HCF. Participants delivering for the first time also felt strongly that given their lack of experience, they should deliver in a HCF.

Barriers

Though the pregnant women interviewed were adamant about their desire to deliver at a HCF, their narratives revealed important barriers to

achieving higher rates of HCF delivery: (1) maltreatment by HCF midwives, (2) costs associated with HCF deliveries despite waived facility fees, (3) lack of a support person, (4) difficulty in obtaining transportation and (5) precipitous labor.

Even in the presence of a known HCF midwife (DN), participants described harsh treatment by HCF midwives as a major barrier to utilizing HCFs for delivery. Despite many participants speaking fondly regarding aspects of their care at St. Dominic's, participants commonly described witnessing or hearing stories of HCF midwives shouting at delivering women, being harsh, impatient, or unhelpful both at St. Dominic's and other HCFs. As one participant said: *"Some of them [facility midwives] are too harsh and their characters are not good. You won't do anything bad but how they receive you is not good and some too they will be feeling sleepy and you will call them and they won't come (36 y.o., 3 facility deliveries)"* and *"What I have heard is that some of the midwives, they will beat you, they will shout on you, they don't have patience for you (28 y.o., 1 facility delivery)."* While participants were steadfast in their preference for HCF delivery—pledging "*whatever they will do, I will come to the hospital (23 y.o., 1 facility delivery)"*—participants consistently referenced ill-treatment as critical in explaining the persistence of non-HCF deliveries. Women's descriptions of midwives' behavior as a deterrent to HCF delivery are particularly notable given the stark contrast between women's description of HCF midwives and TBAs. As one woman with a previous home delivery described: *"What I like most in the house, the women [TBA] will be with you and then she will not shout on you, she will pamper you and assure you or reassure you that things will be ok. I like it, it is good (38 y.o., 3 home deliveries)."*

Although the Ghanaian government has waived facility fees associated with ANC and HCF delivery, significant costs remain in obtaining a HCF delivery. In addition to the cost of transportation, one commonly mentioned expense was the items pregnant women are required to bring with them to HCFs for delivery: *"The nurses demand the items; they are too many that I can't afford (33 y.o., 2 previous facility deliveries)."* The list of items women are asked to provide for facility delivery includes: sheets, a plastic bed covering, antiseptic, a bulb aspirator, and absorptive cotton padding (see Table 3).

Table 3: Items pregnant women are asked to bring to a HCF delivery*

Clothing for baby	Baby soap
Sanitary napkins	Sponge
Dettol (liquid antiseptic)	Baby drink
Absorptive pad for cot	Rubber machintos (sheets of rubber)
4-6 bed sheets	Bulb aspirator
Parazone	Bucket

*List provided by the midwives at SDH

Participants' noted that for some of their peers having to collect these items made HCF delivery cost prohibitive. The resulting decision to deliver outside a HCF was further fueled by fears of mistreatment as a repercussion for a failure to bring the listed items for a HCF delivery: *"I know somebody who delivered at home and I asked her why and she—there wasn't any means. The items they [the hospital] were requesting for the delivery, financially she no money to buy them and bring them to the hospital and if she doesn't bring it, the nurses will shout on her. That is why she delivered at home (35 y.o., 2 facility deliveries)."* In contrast, TBAs were not described as requesting such items. The cost of home delivery was described as more flexible and therefore more feasible for strapped families: *"As for the TBA, if you don't have money they charge you some amount and if you can't get all, you can make part payments (38 y.o., 3 home deliveries)."* In contrast, some participants, particularly those with extensive formal education, rejected the idea that HCF delivery is too expensive and instead cited lack of education or "ignorance" as driving home delivery; as one participant with 15 years of formal education stated: *"You should be prepared… it is not too expensive (25 y.o., no previous facility deliveries)."*

Patients at HCFs in Ghana rely on a support person, most often a family member, to bring them

food, water, clothing, bedding and any other items they may need during their stay at the HCF. For remotely located families, small families, women without family support, or families who cannot afford time away from work, finding a support person to care for an expectant mother during her HCF stay can be extremely difficult. Participants described the lack of a support person as another important deterrent to HCF delivery: *"If I deliver at the hospital I won't get anybody to care for me that time, that is why I prefer[ed] to go at home… there wasn't anybody to care for me after delivery (34 y.o., 2 home deliveries)."* In contrast, laboring at home or with a nearby TBA often results in less displacement of the expectant mother from her family, reducing the need for a support person committed to both arranging care of the expectant mother at the HCF and subsuming the expectant mother's roles at home.

Participants also noted that it can be particularly difficult or costly to get transport to a HCF at night, in rural areas where vehicles pass infrequently, on non-market days, and during the rainy season when certain roads may be rough or impassable. In an attempt to circumvent such barriers, some participants made advance arrangements with taxi drivers, and a few women said they planned to stay nearby the hospital when delivery neared.

Issues of transportation were described as particularly pertinent at the onset of labor: *"When I go at home and I feel like labor starts I will come and stay nearby to this place so that I deliver here because our road is not good (31 y.o., 4 home deliveries)."* The recognition of, reaction to, and length of labor were mentioned as critical in determining delivery location. When participants were asked how they would know when to come to the HCF, most said they would report to a HCF at the first sign of labor, recognized as abdominal pains and contractions, while others said they would wait until their water broke. Precipitous labor, described by participants as labor that is short in duration, was commonly mentioned as a barrier to facility delivery: *"Some, the labor will be precipitated… quick, so they have to deliver at home (19 y.o., no previous deliveries)."*

Discussion

This study provides a novel exploration of pregnancy and childbirth care from the perspective of pregnant women seeking ANC at a mission hospital in rural Ghana. In so-doing, it provides insight into enabling factors and barriers associated with utilizing SBAs in HCFs.

In Ghana views surrounding pregnancy care, SBAs and HCF delivery have traditionally been shaped by an understanding of pregnancy as a natural phenomenon[22, 27, 28]. Historically, homebirth has been conceptualized as indicative of a woman's strength and integrity, and has been regarded as an achievement that elevates a woman's status within her home and community[29]. The value placed on homebirth as well as the physical barriers to non-HCF delivery have to date been reflected in high rates of non-HCF delivery. For the first time in 2008 Ghana Demographic Health Survey data showed more women utilizing HCF delivery than non-HCF delivery[37]. The present findings provide qualitative support and rationale for the shifting norm in delivery care suggested by quantitative reports. The current findings suggest that in rural Eastern Ghana, practices and beliefs surrounding pregnancy are moving away from traditional model which favored non-HCF delivery. This transformation is occurring as increased attention is placed on the complications associated with pregnancy and the ability of SBAs in HCFs to address pregnancy complications successfully. Although stakeholders in developing countries have previously expressed divided opinions over the use of SBAs in HCFs for pregnancy care, Mills and Bertrand (2005) found that focus group participants in rural Ghana identified SBAs in HCFs as the ultimate source of obstetric care and noted a community shift away from the traditional practices associated with labor and delivery[22, 24, 31]. This coincides with the findings from our study which suggests that influential family members increasingly are lobbyists for HCF deliveries[22]. Given the tight communal and familial nature of Ghanaian culture, a shift in community acceptance and support for women delivering at HCFs represents a significant advancement in reducing Ghanaian women's

barriers to HCF pregnancy care. Based on women's perceptions of community support and rising normalization of HCF delivery, we hypothesize that there will be a significant increase in HCF delivery rates in the 2013 Ghana Demographic Health Survey.

Participants' narratives in turn showcase the barriers that remain despite increased community support for HCF delivery. As has been identified in every known qualitative study of delivery care determinants in Ghana, and in numerous other low-income settings, pregnant women expressed fears of what could at best be described as social distance, and at worst physical and verbal abuse, by midwives at HCFs[22,28,29,30,32]. In contrast, TBAs, the most notable alternative to HCF delivery, were described as emotionally supportive and attentive. Similar observations have been made by other authors[27, 42]. In the present study, the safety offered by SBA during HCF delivery was seen by pregnant women as a benefit that outweighed competing concerns about HCF delivery, including the potential for abusive staff. However, given the persistence and consistency of reports of mistreatment, a concerted effort is needed to understand and tackle this problem if interventions are to effectively increase and consciously endorse the benefits of HCF delivery. Given the broader context of women's health and rights, advocates for decreasing maternal mortality cannot accept interventions that compromise respect for women. Some of the language used by participants such as, *"you can't help yourself,"* reminds us that as countries like Ghana move away from non-HCF deliveries work is needed to ensure that interventions foster rather than compromise women's autonomy.

Data presented here are consistent with other studies indicating the costs associated with HCF deliveries are a very real deterrent for women[13, 43, 44,45,46,47]. After the Ghanaian government waived facility delivery fees in 2008, Mills et al. (2008) found that Ghanaian women who knew that facility fees were waived were 4.6 times more likely to deliver in a HCF than women who did not[13]. Importantly, the present study is among the first to suggest that cost remains an important factor even after programs are implemented that remove or significantly limit user fees. While the cost of transportation is fairly apparent, less attention has been paid to the up-front cost associated with obtaining the items women are expected to bring with them to deliver at a HCF in Ghana (see Table 3)[29]. For many women of limited means, obtaining such supplies necessitates difficult decisions regarding the relative benefit of HCF delivery, compared to non-HCF delivery, particularly when there is a seemingly healthy pregnancy.

Our study also illustrates the challenges women face with regard to support during HCF deliveries. Women described concerns about securing a support person to provide for their needs including bringing them food, water and clothing, during and after delivery at a HCF. This speaks to the challenges faced by many HCFs in low-income countries which are under-staffed, under-resourced, and have limited availability of transitional care. In the face of such resource constraints, women rely upon their friends and family to fill the gaps. Future research is needed to help better understand how the social support provided by friends and family can be harnessed to increase HCF delivery rates.

As our study also reiterates, transportation is a long-standing obstacle for women seeking HCF delivery in low-income countries. Both securing transportation and distance to HCFs are frequently cited as critical barriers for women seeking HCF delivery[13,17,41,42,48,49,50,51,52,53]. Many creative schemes to tackle issues of transportation have been explored in Ghana and other low-income countries. These include the use of tractor ambulances, donkey carts, bicycle ambulances and a "red card system" of signaling profession drivers from the roadside with a red card indicating a woman is in labor. Respondents in our study who lived far from a HCF were resourceful in working to secure transportation through utilizing advance contracts with drivers or staying close to a HCF when their due date neared.

Finally, our study suggests that clinical factors beyond women's control can be significant in preventing women from realizing their intentions to deliver in a HCF. When labor comes on rapidly women report not having enough time to get to a HCF. These findings are in keeping with the

existing literature on the role of precipitous labor in reducing HCF delivery[49, 54].

Though this study provides a novel and critical perspective, it is not without limitations. Women seeking pregnancy care at a well-equipped HCF, and who agree to be interviewed, are likely biased toward a preference for HCF deliveries. However, research cautions against conflating seeking ANC and desire for a HCF delivery. Three separate studies have found that women who are told their pregnancies are "normal" during ANC are much less likely to seek and obtain a HCF delivery[27, 33, 41]. Nonetheless, conducting interviews at a HCF with a HCF midwife present may deter anti-facility sentiments. Frequent descriptions of mistreatment by midwives suggest that participants felt able to express at least some of their grievances. Another potential limitation is that during real-time translation from the local language into English for audiotaping and transcription, it is possible that some subtleties in language were lost. However, all data were reviewed and discussed among the interviewers (HC, DN, KC) to minimize this potential. Finally, this study was conducted at a single HCF. Thus the results cannot be said to be representative of Ghanaian women as a whole, though our sample of 85 women and the consistency of our results give us confidence that our findings provide a valid contribution to the understanding of delivery location.

Conclusion

Through the use of semi-structured interviews designed using grounded theory methodology, the pregnant women interviewed in this study had the opportunity to communicate their views on the determinants of delivery location and SBA without the constraint of preconceived and often westernized delivery determinant frameworks. In doing so the gap between the high rate of ANC and the low rate of HCF delivery in rural Eastern Ghana was explored from the novel and critical perspective of pregnant women. The results suggest burgeoning support for HCF delivery by both pregnant women in rural Eastern Ghana and their communities. This support is particularly important given the influential nature of community and family members in health seeking behavior in Ghana. While a palpable shift in support for HCF deliveries marks a critical step toward increasing rates of HCF delivery, the perspective provided here suggests major barriers persist. Unaddressed, these barriers may severely hinder achievement of MDG5. Programmers, researchers and stake-holders will do well to actively address these barriers, particularly the repeatedly reported maltreatment of laboring women by HCF midwives.

Competing Interests

This study, including the design and conduct of the study, the collection, management, analysis and interpretation of the data, and the preparation, review, and approval of the paper, are solely the responsibility of the authors and do not necessarily represent the official views of the National Institutes of Health. No author has a financial conflict of interest in this research or in its publication.

Acknowledgements

We would like to thank St. Dominic's Hospital for hosting our research, and in particular, the Antenatal Clinic for providing space and support to our researchers. Also, we are grateful to Dr. Kofi Gyan for his logistical support. We would also like to thank the Minority and Health Disparities International Research Training Program at the University of Michigan for their funding and support. The project/study described was supported by Grant no.T37 MD001425-08, from the National Center of Minority Health and Health Disparities, National Institutes of Health.

Contribution of Authors

CM, CE, and RA conceived the study design. HC, RA, KC and CM developed the protocol. HC, DN and KC refined the interview tool and conducted all interviews. HC and KC transcribed the interviews. HC completed the open coding. HC, CE and CM refined the emergent framework. HC

drafted the manuscript. All authors assisted in the editing and refining of the manuscript. All authors read and approved the final manuscript.

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