

ORIGINAL RESEARCH ARTICLE

Barriers to Skilled Birth Attendance: A Survey among Mothers in Rural Gambia

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Abstract

The objectives of this cross-sectional survey were to identify the most important barriers for use of skilled attendance during childbirth by women in rural Gambia. We also assessed information received during antenatal care, preparations made prior to childbirth, and experiences and perceptions that may influence the use of skilled birth attendance in rural Gambia. The most frequently stated barriers for giving birth in a health facility were not having enough time to go (75%), and lack of transport (29%). The majority of the women (83%) stated that they preferred having a health worker attending their childbirth. More than seventy percent of the participants gave birth attended by a traditional birth attendant, but only 27% had intended to give birth at home. Sixty-four percent had made advance arrangements for the childbirth. Only 22% were informed about expected time of birth during antenatal care. Our findings suggest that the participants hold the knowledge and motivation that is necessary if practices are to be changed. Interventions aiming at ensuring timely transport of women to health facilities seem key to increased use of skilled birth attendants. (*Afr J Reprod Health* 2014; 18[1]: 35-43).

Keywords: Childbirth, maternal health services, access, barriers, birth preparedness, complication readiness

Résumé

Les objectifs de cette étude transversale étaient d'identifier les obstacles les plus importants pour se servir des accoucheuses qualifiées lors de l'accouchement. Nous avons également évalué les informations reçues lors des soins prénatals, les préparatifs effectués avant l'accouchement, et les expériences et les perceptions qui peuvent influencer sur l'utilisation des accoucheuses qualifiées en Gambie rurale. Les obstacles les plus souvent mentionnés pour accoucher dans un établissement de santé de ne pas avoir assez de temps pour y aller (75 %), et le manque de transport (29 %). La majorité des femmes (83%) ont déclaré qu'elles préféreraient avoir les services du personnel médical pendant leur accouchement. Plus de soixante-dix pour cent des participantes ont accouché à l'aide d'une accoucheuse traditionnelle, mais seulement 27 % avaient l'intention d'accoucher à la maison. Soixante-quatre pour cent avaient pris des dispositions à l'avance pour l'accouchement. Seulement 22 % ont été informées de l'heure prévue de l'accouchement au cours des soins prénatals. Nos résultats indiquent que les participantes possèdent les connaissances et la motivation qui sont nécessaires si les pratiques doivent être modifiées. Les interventions visant à assurer le transport en temps opportun des femmes aux établissements de santé semblent être la clé pour accroître l'utilisation des accoucheuses qualifiées. (*Afr J Reprod Health* 2014; 18[1]: 35-43).

Mots-clés: accouchement, services de santé maternelle, accès, barrières, préparation pour l'accouchement, préparation pour la complication

Introduction

Globally, an estimated 358 000 women die due to pregnancy and childbirth-related complications every year¹. The maternal mortality ratio (MMR) is estimated at 260 per live birth, with the vast majority of maternal deaths (99%) occurring in low and middle-income countries¹. The distribution of maternal mortality and morbidity disproportionately strikes less privileged women,

particularly those who are poor and with lower education². In 2000, 189 countries endorsed the Millennium Development Goals (MDG)³. MDG 5 aims at reducing the MMR by 75% from 1990 to 2015. Besides MMR, the proportion of births attended by skilled health workers is used as an indicator for measuring progress⁴.

Maternal mortality clusters around the time of birth, and the most common reasons for mortality are haemorrhages, infections and hypertensive

disorders that require medical interventions. It has therefore been argued that the strategy of skilled attendance in an enabling environment is the single most effective approach for preventing maternal deaths^{5,6}. The strategy of skilled attendance in an enabling environment entails that health workers with midwifery skills are present at the birth; have the ability to handle or refer in cases of emergency; and have sufficient and appropriate equipment⁷.

The birth preparedness and complication readiness (BP/CR) strategy aims at increasing both the effectiveness and timely use of key services for mothers and newborns, particularly during childbirth⁸. Birth preparedness should include the identification of a skilled provider, saving up of money, identifying transport, and identifying a blood donor before the onset of labour. This strategy is based on the assumption that a reduction in the delays to 1) decide to seek care, 2) reach the health facility, and 3) to receive appropriate care while at the facility, can be achieved through preparation for childbirth and possible complications⁸.

Determinants for utilisation of health services typically refer to factors that predict use. The most important determinants for the use of health services for childbirth, identified in a recent review were: high maternal age, high household wealth, high education, low parity and urban residence. In studies where determinants of use of maternity services have been assessed, the focus has mainly been on quantifiable socio-cultural and economic factors, leaving out factors such as perceived benefits and needs, and perceived quality of care. The latter is often reported as an important barrier in qualitative studies⁹.

The MMR in The Gambia is high: 400 per 100 000 live births, and only 57% of childbirths are assisted by a skilled attendant¹⁰. Furthermore, there are vast rural-urban differences in these indicators¹¹. Antenatal care (ANC) coverage is high, with 98% attending at least once¹⁰. One study found that 94% of surveyed women attended a maternal and child health clinic within 30 days after delivery¹².

The health system in The Gambia is organized into three tiers: primary, secondary and tertiary level care, in addition to a network of traditional

community health workers. The Primary Health Care strategy, which was adopted in the late 1970s, forms the basis of the national health policy¹³. The aim was to make health care more affordable and accessible to the rural poor, especially women and children¹¹. Although they are not considered as skilled health providers, traditional birth attendants (TBAs) still play an important role in maternal health care in The Gambia¹⁴. Villages with more than 400 inhabitants have resident TBAs that have received government-supported training¹². In recent times, the government has placed an emphasis on preventive health and access to community health care¹⁴. This emphasis can be seen in the presidential decree for free maternal and child health (under five years) services that was announced as a policy statement in August 2007. Eighty-five percent of the households are living within 7.5 kilometres of a primary health care centre or outreach clinic, hence the geographical accessibility to basic health services is considered good¹¹.

A thorough understanding of the importance of the local barriers and facilitating factors for the use of maternal health services is a prerequisite for designing and implementing interventions that aim to improve access. Our aim is to contribute to the design of maternal health programmes by generating important data on determinant and delays that need to be addressed to increase women's use of health care services when giving birth. The objectives of this survey were to identify the most important barriers for making use of skilled attendance during childbirth, to assess information received during antenatal care and preparations made prior to childbirth, and to identify experiences and perceptions that may influence the use of skilled birth attendance in rural Gambia.

Methods

Study site

We conducted a cross-sectional survey in the North Bank East Region, a rural part of The Gambia. The area has one tertiary level hospital that offers comprehensive emergency obstetric

care. This hospital serves as a referral point for 12 peripheral health centres and/or dispensaries where basic emergency obstetric care is non-existent. From health centres in the larger towns, health personnel with mobile “trekking” teams provide antenatal care services, immunize newborns and treat minor diseases in remote villages. In the hospital and the health centres in this region, trained nurses, midwives and medical doctors handle deliveries. Thus, in practice, hospital delivery means that a skilled health worker is present.

Ethical considerations

Ethical clearance was obtained from the Ethical Review Committee in Norway and The Gambia Government/Medical Research Council Laboratories. When we recruited the participants, they were informed about the purpose of the survey, confidentiality, and their right to withdraw from participating without facing any consequences. Informed consent to participate was confirmed by thumbprint. All participants were given two soaps as a reward for their time and effort.

Data collection

Data collection was conducted by administering questionnaires to the participating women between September and November 2010. Any woman of reproductive age (15-49 years), living in North Bank East Region, who had given birth outside a health facility within the last six months prior to the day of data collection, was eligible for inclusion. Our sample size calculation, based on a 95% confidence level and 5% confidence interval, gave a needed sample size of 384. We expected some dropouts, and therefore aimed for a minimum of 400 participants.

Due to the known high attendance at reproductive and child health (RCH) clinics shortly after delivery, we aimed at carrying out most of our interviews there. We initially recruited participants from mobile clinics, but also conducted interviews at the RCH clinics in Farafenni and Kerewan and by going door-to-door in villages. At the RCH clinics, women were asked to participate in the survey while they were

waiting for the health workers to see them. We carried out interviews with as many as possible among the women attending the clinic, sometimes all. When, due to limited capacity, all women present could not be interviewed, the selection of respondents was non-systematic – in practice we believe the selection was fairly arbitrary. Often, when we recruited women in their villages, village health workers and TBAs assisted us in identifying eligible women. We always consulted the alkali, the head of the village, to obtain approval before recruiting.

We used the most relevant parts of a 12-part questionnaire from the “Monitoring birth preparedness and complication readiness” toolkit as data collection tool⁸. We conducted a pilot study prior to the survey. Realizing that some participants seemed to have difficulties grasping the meaning of certain questions, we made some adjustments in an effort to make them more specific. Several local languages are spoken at the study sites, and we were not able to formally translate the questionnaire to all of them. Thus, the interviewers translated the questionnaire from English to the local language on the spot while conducting the interviews.

Analysis

Our questionnaire had closed and open-ended questions. For open-ended questions, we instructed the interviewers to document all relevant responses provided by the participants, in addition to ticking off the appropriate pre-specified response. We used the full breadth of information captured in the interviews to define categories or sub-categories. One of the researchers (PML) coded the responses, and another researcher (AF) went through the data and the coding to control the use of categories. Disagreements were solved through discussion.

Data entry, descriptive and analytical statistics were performed in Predictive Analysis Software (PASW/SPSS) Version 18.

Results

Socio-demographic information

Of the 450 women we ended up asking, 432 accepted, thus we have a respondent rate of 96%.

Among the participants, 73% were less than 29 years old, all were Muslims and almost all (99%) were married. Thirty percent of the women stated that they lived partly together with their husband, and 41% lived in polygamous relationships. Sixteen percent of the participants had attended a government school, and almost half of them had attended for five years or less. Nearly all had attended Islamic school. Sixty percent had given birth in a health facility at least once previously.

The importance of various barriers

The most commonly cited reasons for not giving birth in a health facility were in the category "Not having enough time to go", with three out of four respondents indicating that lack of time was an important barrier. More than half of these (41% of all the respondents) stated that arrangements had been made for transport to the health facility, but that childbirth took place before transport arrived. One hundred and twenty-three (29%) of the respondents stated that they did not have access to transportation when they were about to deliver. Going into labour at night, bad weather or poor road conditions were among the reasons mentioned for not obtaining transport. Only eight percent of the women said they did not consider it necessary to give birth in a health facility. Roughly 70% of the women reported that they gave birth before the arrival of transport or they had no access to transport. See Table 1 for further details.

Table 1: The main reasons for not giving birth in a health facility

Variable	% (n)	CI
(n = 432)		
Not having enough time to go	75 (323)	71-79
-Childbirth happened before arrival of transport	41 (176)	36-45
-Realise/informed late	9 (37)	6-11
-Delivered on the way	5 (21)	3-7
No transport	29 (123)	24-33
-Night/bad weather/poor road	7 (32)	5-20
Services are poor	10 (42)	7-13
Respondent did not think necessary	8 (36)	6-11
Facility too far	10 (41)	7-12
Too expensive	5 (22)	3-7
No childcare	4 (16)	2-5
Husband/family did not think necessary	1 (2)	0-1

Personal experiences related to most recent pregnancy

Table 2: Personal experiences related to most recent pregnancy

Variable	N (%)	Mean Value (SD)
Attended ANC (n=432)		
Yes	424 (98)	
No	8 (2)	
Number of ANC attendances (n=422)		3.7 (1.3)
1-2	63 (15)	
3-4	259 (61)	
5-6	92 (22)	
7-8	8 (2)	
Health professional seen for first ANC (n=423)		
Doctor	1 (0)	
Nurse	422 (100)	
Advice given during ANC regarding: (n=423)		
Danger signs	401 (95)	
Where to go in case of danger signs	397 (94)	
Where to give birth	360 (85)	
Arrangement for transport	114 (27)	
Arrangements for funds/finance	120 (28)	
Arrangements for a blood donor	130 (31)	
Advice for health care provider to attend delivery	298 (70)	
Information about expected time of birth	92 (22)	
Satisfaction with ANC (n= 423)		
Excellent	342 (81)	
Good	81 (19)	
Average	1 (0)	
Poor	0 (0)	
Do not know	1 (0)	
Reasons for not attending ANC (n=8)		
Too expensive	2 (25)	
No one to accompany	2 (25)	
Travel	2 (25)	
Other	2 (25)	

Almost all (98%) participants stated that they had attended ANC at least once. Among the women who had attended ANC, the majority (95%) had been informed about danger signs, 94% about where to go if they experienced a complication, and 85% about where to give birth. A minority of the women reported discussing birth preparedness and complication readiness issues during the ANC visit. Only 22% had received information about their expected time for giving

birth. The majority of the women, (81%) ranked the ANC-services as excellent. See Table 2 for further details.

Table 3: Personal experiences in most recent childbirth

Variable	N (%)
Place of birth (n=429)	
Respondent's home	403 (94)
TBAs home	4 (1)
Other	3 (1)
On the way to the facility	19 (4)
Plan to give birth at the given place (n=432)	
Yes	117 (27)
No	315 (73)
Variable N (%)	
Arrangement made prior to birth (n=432)	
Yes	276 (64)
No	156 (36)
Arrangements made (n=276)	
Identify transport	255 (92)
Save money	160 (57)
Identify blood donor	48 (17)
Identified skilled provider	184 (66)
Final decision about where to deliver (n=431)	
No one	24 (6)
Respondent	226 (52)
Respondent and husband	109 (25)
Husband	36 (8)
Other	36 (9)
Assistance during birth (n=430)	
TBA	311 (72)
Community health worker	7 (2)
Relative/friend	65 (15)
Nurse/midwife	3 (1)
No one	35 (8)
Other	9 (3)
Preference for someone else to assist (n=432)	
Yes	359 (83)
No	73 (17)
Preferred assistance (n=432)	
Health personnel	358 (83)
TBA	68 (16)
Other	6 (1)
Reasons for preference ¹ (n=431)	
Staff/skills/drugs	357 (83)
Staff can handle complication	285 (66)
TBA is helpful	60 (14)
TBA provide confidentiality	15 (4)
TBA show respect/sympathy	21 (5)
Other	22 (5)
Payment to assistant (n=431)	
Yes	322 (75)
No	80 (19)
N/A	29 (7)

Payment to assistant in GMD (n=199)	
1-20	51 (26)
21-50	131 (66)
51-100	15 (8)
101-300	2 (1)

Personal experiences in most recent childbirth

Most of the participants, (94%), gave birth in their home. Four percent gave birth on their way to a health facility, while the remaining gave birth in a TBA's or someone else's house. One in four stated that they had planned to give birth at home. Around two thirds of the full sample stated that they had made arrangements in preparation for the childbirth.

Three out of four respondents reported that they were assisted by a TBA during childbirth. Eighty three percent said they would have preferred being assisted by someone else than the person who had assisted them, and most would have wanted a health professional. Four out of five mentioned skills and access to drugs as important reasons for wanting a health professional present during childbirth. Health personnel's ability to handle complications was emphasised by two out of three respondents. See Table 3 for further information.

Knowledge of danger signs

Almost all participants knew that unforeseen problems during pregnancy and childbirth could put the woman's life at risk; only two disagreed. The three most commonly mentioned risk factors during pregnancy were severe bleeding (35%), edema (17%) and blurred vision (10%). The three most commonly mentioned health problems during labour and childbirth that can endanger the life of a woman were prolonged labour (72%), severe bleeding (57%) and retained placenta (47%). The most commonly mentioned health problems that can endanger the life of a woman during the two first days after childbirth were hypertension, (57%), anaemia (54%) and severe headache (54%). When asked if a woman could die from these problems, almost all (99%) said yes.

Attitudes and perceptions of health workers and TBAs

Our findings indicate a broad consensus among the participating women regarding perceptions about

doctors'/nurses'/TBAs' knowledge about women's needs for care when they are pregnant, during childbirth, and immediately after childbirth. Practically all (99%) agreed when asked if doctors and nurses are knowledgeable about the care a woman need, and 97% agreed that TBAs are. When asked if health providers treat women with respect, almost all, (95%) agreed that doctors treat women with respect, and 98% agreed that TBAs do. Slightly fewer, (88%) agreed when asked if nurses treat women respectfully. We asked the participants if they thought nurses/doctors/TBAs know what to do in case of complications: 99.5% agreed that doctors know what to do, 99% agreed that nurses know, and only three percent thought that the TBAs know what to do.

Perceptions of local facilities for childbirth

Approximately two thirds of respondents noted that a government health centre, and one-third a government hospital, was their closest health facility for giving birth. When asked how they would get there, 83% mentioned some means of transportation and 17% that they would walk. They reported a mean (and median) transport time of 60 minutes (SD 45). The respondents' opinions of the services provided in the given facility were generally positive, with 68% stating "excellent", 27% "good", 3% "average" and 2% "poor".

Discussion

Main findings

For the women included in this study, the most important reported barriers for giving birth in a health facility were not having enough time to get to a facility from the onset of labour, and problems with transport to the health facility. The women in our study were aware that complications can arise, and expressed confidence in the health care workers' ability to help them in case of complications. The majority of the women reported that they would prefer to give birth attended by a health worker. The women reported that some aspects of birth preparedness and complication readiness were communicated during ANC, particularly information regarding danger signs and where to give birth. However, information about the need to arrange for transport

and money prior to birth, and information about expected time of birth had been less well communicated. More than half of the women reported having made some sorts of preparations prior to childbirth.

The most important barriers

The most commonly cited barrier for not visiting a health facility for childbirth was "not having enough time to go". Similar findings were reported in a study from Uganda, where "quick labour" was the most frequently mentioned reason for home birth¹⁵. It should be noted that in other studies in this topic, shortage of time is often not explicitly stated as a reason hindering the use of skilled attendance. However, socio-cultural determinants that are likely to influence factors on the decision to seek care, and thereby the available time to get to a health facility, are often cited⁹. We did find discrepancies between the women's desire to use or not to use a health facility, and their ability to act accordingly. Our finding that 50% of women considered themselves the final decision-maker of where to give birth contrasts other studies from The Gambia, where this proportion was substantially lower^{16;17}.

The majority of women in our study who reported "not having enough time to go" as a barrier, also reported having made arrangements for transportation to a health facility. Thus, we can assume that most of them would have gone to a health facility had there been time to do so. It may be that shortage of time for some of the women was linked to them not seeing the need to hurry off to the health facility, since labour and giving birth went quickly and without complications, a possible explanation that has been reported from other studies^{15;18}. A fear of being sent home from the hospital when arriving too early was identified in a study from Ghana, this might also be an explanatory factor in our study setting¹.

Access to transport was the second most important barrier to giving birth in a health facility. The women reported an average time of one-hour transport to reach the health facility. Lack of transport is described as an important barrier in many studies from other low- and middle-income countries^{9,15-17;20-25}. Previous studies from The Gambia have reported concerns

voiced by TBAs about lack of transport for women that need referral to health facilities^{17:26}.

Access to basic health care is considered to be high in The Gambia. However, since mobile services are available on set days, and since women in labour require higher-level facilities and 24-hour service, the accessibility is restricted for this group. Furthermore, a lack of timely transportation can be an important issue, especially for women in labour. In rural Gambia, waiting time for transportation can be longer than the actual travel time, and should therefore be considered equally important as distance¹¹. Lack of transport, lack of time, lack of money and long distance are interrelated barriers to accessing health care services. Transport with a donkey cart may be affordable, but can be slow, while taxis are fast, but may be prohibitively expensive – and unavailable.

Birth preparedness and complication readiness

“Safe motherhood” emphasises the importance of birth preparedness and complication readiness to reduce delays and barriers to accessing skilled care for childbirth⁸. We found a relatively high level of birth preparedness and complication readiness among the women, with 64% stating that at least one step had been taken in preparation prior to childbirth. However, only one of four among our respondents stated that their initial intention was to give birth in the place where the childbirth actually happened. Telfer et al presented findings regarding birth preparedness in The Gambia showing that the majority gave birth where they had planned¹². In their sample only 18% of women gave birth in a health facility, indicating that the majority had planned and desired to give birth outside a health facility. For women who had planned to give birth at home, very few had made financial or transport arrangements prior to the birth¹². This is a dramatically lower number of women preferring to give birth in a health facility, as well as lower levels of birth preparedness, compared to our findings. A possible explanation for this discrepancy is that their data collection took place in 1998/99, and practices and preferences may have changed since then. Over the last two decades, The Gambia has experienced a

considerable increase in the use of skilled birth attendance¹.

We assessed the women’s perceptions of the information they were given during ANC. Most of our respondents had received information about where to go in case of danger signs and where to give birth. They also received advice to have a skilled health worker present during childbirth. We found that a minority, between 27% and 30%, reported receiving advice about making arrangements for transport, saving money and arrangements for a blood donor. This indicates that these factors should be more emphasized during ANC visits. Alarming few (21%) stated that they had been given information about their date of term, which is key information for the planning of childbirth. In a study from The Gambia from 2008, it was found that communication, education and information given by health workers when providing ANC services was poor, and the majority of the participating women reported that the consultation took less than three minutes²⁷.

Perceptions and experiences of maternal health services and providers

A likely first step in motivating an individual to use a health service is the belief that utilising the service will positively benefit their health²⁰. This perception is highly influenced by knowledge about risks, opinions about the available help at the health facility, and previous experiences with the health care system⁹.

Our findings indicate that over 80% of the women would prefer to give birth attended by a skilled provider. The majority of the women in our study rated the service provided by their closest health facility where they could give birth, as excellent or good. Important facilitating factors for the use of health services for childbirth among our respondents were the perception that health care workers have the ability to handle complications, and that they possess the necessary equipment and skills. Similar findings were reported from Malawi, Ghana and Burkina Faso^{23,24,28}. In our study, the participating women were clearly aware of serious risk factors that can endanger their life during pregnancy, childbirth and the postpartum period.

Participants in our study who preferred having a TBA assisting them during childbirth gave the following reasons: TBAs are helpful, and they provide confidentiality, respect and sympathy. Almost all of the participants believed that the TBA was knowledgeable about the kind of care a woman needs during pregnancy. When asked if the TBAs could handle complications, 80% responded “no”. In accordance with other studies from The Gambia^{17,26}, we found that women perceive the TBA to be a respectful provider.

Strengths and limitations

The women we recruited were a convenience sample, which means that there is a risk of selection bias. However, the favourable sites for recruitment and the high respondent rate lead us to believe that we did capture most of the women in our target group. By only including women who had given birth within the last six months we reduced the chance of recall bias i.e. the ability to remember and report on the issues we investigated.

One weakness with our questionnaire was that it was not translated into the local language. We trained the interviewers to ask the questions as directly as possible when translating, however, a questionnaire that requires translation on the spot likely decreases the degree of control of the interview setting and increases the chance of introducing interview bias. Thus, there is a real danger that lack of objectivity and inconsistencies in how the questionnaire was administered influenced our findings. Indeed, in several cases we decided to reclassify the coding of answers done at the time of the interview, based on a total assessment of all the answers given by the respondent. Furthermore, the interviewers who administered the questionnaire were health workers, which may also have introduced certain biases in our results. For example, the respondents may have been reluctant to make negative statements about the interviewer’s profession. Also, they may not have provided candid responses about health facilities when asked by a health worker.

Clearly, our findings should not automatically be assumed to be representative of all Gambian

women, but we still believe our findings provide useful insights into the situation of most women in rural parts of the country.

Conclusion

We found a relatively high awareness of risks of life-threatening complications, a widespread belief in the ability of the health care workers to help if complications arise, and a general desire for having a skilled attendant present during childbirth. Lack of transport and money, in addition to perceptions about negative attitudes among health professionals may prevent women from accessing facilities, despite the perceived benefits. Interventions aiming at ensuring timely transport of women to health facilities seem key to increasing the use of skilled birth attendants in The Gambia. The interrelated factors like time, transport, distance and lack of money should all be taken into consideration. Our findings indicate a great potential for increased use of skilled birth attendants in The Gambia.

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