ORIGINAL RESEARCH ARTICLE

Family Planning Needs of Women Experiencing Severe Maternal Morbidity in Accra, Ghana: Another Missed Opportunity?

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Abstract

Women with severe maternal morbidity represent an important group to target for increasing contraceptive uptake. Our objective was to explore the future fertility intentions, use of family planning including methods and reasons for not wanting to use contraception among a group of women who had traumatic delivery experience at a tertiary teaching hospital in Accra, Ghana. Our results show that despite higher educational attainment, longer hospital stays and intention to limit or stop childbearing among women, there is a missed opportunity for family planning among women with severe maternal morbidity in this urban African hospital setting. Integrating postpartum family planning consultations by linking available services such as reproductive health clinics at the facilities rather than including additional tasks for the midwives and the doctors in the wards could be a sustainable solution in such urban, high-volume settings. *(Afr J Reprod Health 2014; 18[2]: 15-21).*

Keywords: near miss, maternal morbidity, family planning, postpartum contraception, Africa, integration, facility delivery

Résumé

Les femmes qui souffrent de la morbidité maternelle sévère représentent un groupe important à cibler pour faire avancer l'utilisation de la contraception. Notre objectif était d'étudier les futures intentions de fécondité, l'utilisation de la planification familiale, y compris les méthodes et les raisons de ne pas vouloir utiliser la contraception chez un groupe de femmes qui ont vécu l'expérience traumatique d'accouchement dans un Centre Hospitalier Universitaire à Accra, au Ghana. Nos résultats montrent que, malgré le niveau de scolarité plus élevé, de plus longs séjours à l'hôpital et l'intention de limiter ou d'arrêter de procréer chez les femmes, il y a une occasion manquée pour la planification familiale chez les femmes qui ont vécu la morbidité maternelle sévère dans ce milieu urbain de l'hôpital africain. L'intégration des consultations de planification familiale post-partum en reliant les services disponibles tels que les cliniques de santé de la reproduction dans les installations plutôt que d'inclure des tâches supplémentaires pour les sages-femmes et les médecins dans les salles, pourrait être une solution durable, dans de tels milieux urbains et à volume élevé. *(Afr J Reprod Health 2014; 18[2]: 15-21).*

Motsclés: presque manqué, morbidité maternelle, planification familiale, contraception post-partum, Afrique, intégration, accouchement dans un établissement de santé

Introduction

Maternal morbidity is often an overlooked but important cause of disease burden, especially in low and middle-income countries[1]. For every woman that dies, there are at least 20 more women who suffer from injuries, infection and disabilities relating to pregnancy and birth[2]. Severe maternal morbidity, maternal near miss, is defined as "a woman who nearly died but survived a complication that occurred during pregnancy, childbirth or within 42 days of termination of pregnancy"[3] and these women represent an important group to target for increasing contraceptive uptake[4]. Recent research in Ghana underlines that morbidity is a continuum and indicates that if the underlying causes of poor maternal health outcomes are addressed, it is likely that changes will improve health outcomes across the continuum of morbidity[5]. Many women who have experienced a severe morbidity are considered as high-risk obstetric patients in

subsequent pregnancies. This is especially the case when the interval between the pregnancies is shorter than what is recommended. The World Health Organization (WHO) asserts that birth-to-pregnancy intervals of around 18 months or shorter are associated with increased risk of maternal, neonatal and perinatal mortality[6].

Even though the use of family planning is pivotal in achieving the Millennium Development Goal 5 (MDG-5) on reducing maternal mortality and universal access to reproductive health, contraceptive use is low in many West African countries, including Ghana[7]. In Ghana, the maternal mortality ratio is 350 maternal deaths per 100,000 live births and the modern contraceptive prevalence rate is 17%[8,9]. According to the Demographic Health Survey, the total fertility rate is 4 and about 35% of women have unmet need for family planning[9]. Furthermore, family planning needs among women with severe maternal morbidity have been under-studied in developing countries, including Ghana.

Pregnancy and immediately postpartum period are important opportunities for counseling women on the use and adoption of family planning[10]. In this study, our objective was to explore the future fertility intentions, use of family planning including methods and reasons for not wanting to use contraception among a group of postpartum women who had traumatic delivery experience ranging from complications to near miss identified by the new WHO criteria[11] at a tertiary teaching hospital in Accra, Ghana.

Methods

Semi-structured interviews with 36 women who experienced severe maternal morbidity were conducted between October 2010 and March 2011 as part of a larger prospective study using mixed methodology and focusing on severe maternal morbidity and quality of care[12,13]. This study took place in Korle-Bu Teaching Hospital in urban Accra, which is one of the main teaching facilities in the country. Our qualitative methodology is described elsewhere in detail[13]. Briefly, as part of the quantitative component of the parent study, women with severe maternal morbidity were identified based on the occurrence of the following maternal health outcomes, using patient records: 1) potentially life-threatening conditions were identified based on severe complications and/or critical interventions; and 2) near-miss cases were identified based on organ system dysfunction based on clinical criteria, laboratory markers and management-based proxies[13,14]. The specific criteria can be found in the supplemental document 1. The inclusion criteria were not restricted to gestational age at which the complications happened and women with abortion or ectopic pregnancy related morbidities were included. Women who developed such complications outside pregnancy or after 42 days termination of pregnancy were excluded.

In order to elicit honest responses without the fear of retribution from the staff, women were invited to participate in the study just prior to or immediately after their discharge from the hospital. All women who agreed to participate in the study gave a written informed consent. The IRBs at the Johns Hopkins Bloomberg School of Public Health and University of Ghana Medical School approved the study. The interviews were conducted in English or Twi. Those conducted in Twi were translated and transcribed in English, and a second researcher reviewed all translations and transcriptions before data analysis.

The interview guide included topics on initial expectations related to the pregnancy, perception of complications, the processes of transfer and care women received at the facility. As part of these interviews, the women were also asked about future fertility and family planning.

Thirty-four women had completed medical data extraction forms and 36 women had completed the semi-structured interviews. We performed basic tabulations on morbidity level, socio-demographic, reproductive and maternal health variables extracted from the medical records. The interviews were analyzed for thematic content based on the interview guide.

Results

Among the thirty-six women interviewed, almost all of them were married, Christians and working women with at least junior high school training (Table 1). Overall, 17 women (47%) were

identified as a near miss based on WHO criteria and 15 women (42%) had potentially life-threatening complications. The average age was 31.4 and the average gestational age was 36 weeks. On average, the hospital stay was 13.4 days. It should be noted that none of the women approached for the interview declined.

Table 1: Characteristics of the women (N=36)*

	Number (%)
Near Miss Status	
Near Miss	17 (47)
Potentially life-threatening conditions	15 (42)
Other complications	4 (11)
Mean age	31.4 (Range: 20-42)
Marital Status	
Married	32 (94)
Single	2 (6)
Religion	
Christian	32 (94)
Muslim	2 (6)
Education	
None	1 (3)
Junior High Secondary	12 (35)
Senior High Secondary	14 (41)
Tertiary	3 (9)
Missing	4 (12)
Occupation	
Trader	19 (56)
Hairdresser/Seamstress	6 (18)
Other (Secretary etc)	9 (26)
Mean Hospital Stay (days)	13.4 (5-31)
Reproductive Health Indicators	
Mean parity	1.67 (Range: 0-6)
Mean Gestational age	35.9 (Range: 24-43)
Ever had a miscarriage	22 (63)
Ever had an abortion	19 (53)
Ever had a stillbirth	24 (67)

*Only thirty-four women had completed medical data extraction forms.

Two sets of questions were asked related to family planning. The first asked about fertility intentions in the future. Of the 36 women interviewed, nineteen women (54%) reported wanting more children and 14 (40%) women reported that they would like to limit childbearing. Of the 19 women who wanted more children, more than half of them wanted to space births. The reasons for spacing varied among the women ranging from financial concerns to trying to avoid complications experienced in the previous delivery, underlining the extra burden these women and their families face due to severe morbidity.

"My delivery has been costly, both of my two deliveries [explaining why she does not want to get pregnant again]" (31 years old, near miss, 21 days hospital stay, two kids)

"If I had the chance I will not deliver again but I can't decide… because he is the man who is married to me, so what he says is what will happen. But left to me alone, I would not deliver again. … Because the ways I always suffer in labor, I have lost interest in giving birth again." (25 years old, potentially life-threatening condition, 8 days hospital stay, two kids)

The second set of questions was about future use of contraception and reasons for intended non-use. A majority of the women interviewed (60%) wanted to use contraception, whereas 20% of the women were unsure and the rest (20%) did not want to use. Reasons for not wanting to use contraception included never having used contraception, personal experience of side effects, hearing about the possible side effects of the methods or simply "*not liking it*".

"I'm not using family planning and I don't like it. I have not done some [family planning] before but if I get tablet that I can take that won't worry me, I will." (34 years old, potentially life-threatening condition, 7 days hospital stay, two children)

"I haven't used any [family planning] but they say if you use it for some time and you stop… it becomes difficult to have children after using it for some time. That is why I said I am not going to use any family planning." (41 years old, potentially life-threatening condition, 12 days hospital stay, two children)

Some women cited the importance of joint decision-making with the husband before choosing a method, emphasizing the important role of male partners in the uptake of family planning in Ghanaian context.

"I have to see the advice from the doctors which one would be best for me. But first of all, I have to decide with my husband."(33 years old, near miss, 8 days hospital stay, two children)

"If I use family planning and I did not inform my husband and he finds out, it might lead to

divorce." (25 years old, potentially life-threatening condition, 8 days hospital stay, two children)

Overall, majority of the women who wanted to use family planning for spacing or limiting did not receive any counseling and left the hospital without any methods.

"I don't know any [family planning] so I will come to the hospital for them to educate me on which one will be suitable for me." (37 years old, near miss, 15 days hospital stay, two children)

"For me, I haven't used it before, so until we come back to the hospital, I don't know [which method to choose]" (33 year old, near miss, 7 days hospital stay, one child).

FOR WEB ONLY – if possible

SUPPLEMENTAL DOCUMENT 1: WHO criteria for identification of maternal near miss*[11]

	Clinical	Laboratory	Management
Cardiovascular dysfunction	○ Shock ○ Cardiac arrest	○ pH <7.1 ○ Lactate >5	○ Use of continuous vasoactive drugs ○ Cardio-pulmonary resuscitation (CPR)
Respiratory dysfunction	○ Acute cyanosis ○ Respiratory rate >40 or <6/min	○ PaO2/FiO2 <200 mmHg ○ Oxygen saturation <90% for ≥60 minutes	○ Gasping ○ Intubation and ventilation not related to anesthesia
Renal dysfunction	○ Oliguria non responsive to fluids or diuretics	○ Creatinine ≥300 mmol/l or ≥3,5 mg/dl	○ Dialysis for acute renal failure
Coagulation/ Hematological dysfunction	○ Clotting failure	○ Acute thrombocytopenia (<50 000 platelets)	○ Transfusion of ≥5 units of blood/red cells
Hepatic dysfunction	○ Jaundice in the presence of pre-eclampsia	○ Bilirubin>100 mmol/l or > 6,0 mg/dl	
Neurological dysfunction	○ Coma/ loss of consciousness lasting 12 hours or more ○ Metabolic coma (loss of consciousness AND the presence of glucose and ketoacids in urine) ○ Stroke ○ Status epilepticus/ Uncontrollable fits/total paralysis		
Other severity proxy			○ Hysterectomy due to infection or hemorrhage

*A women presenting with **any** of the conditions listed in this box and surviving the complication is considered a maternal near miss case.

Discussion

There is a missed opportunity for family planning among women with severe maternal morbidity in this urban African hospital setting. Despite the higher levels of education in our study population, we found insufficient knowledge, lack of prior use and lingering fears about side effects such as post-

contraceptive infertility among the interviewed women, supported by a recent study in urban Accra[15]. A cross-sectional study from urban Senegal showed that less than 3% of the women received a family planning method during postpartum period (delivery, postnatal care, immunization for children), whereas a majority of the women who did not receive the services indicated an interest[16]. The high reported desire to learn about and use family planning among women in our study, yet not receiving any family planning consultation or provision during the postpartum period underlines the importance of and the need for postpartum counseling among women with severe maternal morbidity. Moreover, due to their medical conditions, these women stay longer at the hospital allowing time for family planning counseling and provision.

Obstetric complications and severe morbidity may significantly influence women's sexual health, wellbeing and fertility, and differences in health systems and cultural contexts in low-resource settings might accentuate these effects. WHO recommends a pregnancy interval of at least 24 months before attempting the next pregnancy in order to minimize the risk of adverse maternal, perinatal and infant outcomes[6]. Research shows that adequate family planning coverage is essential for those who survive a severe complication because of the potential adverse health and socio-economic impact among those women bearing new pregnancies[4,17].

Current recommendations for improving contraceptive uptake generally include adequate counseling and provision of modern contraceptive methods to recently delivered mothers wanting these services before they are discharged from the hospital[17]. However, as highlighted in a recent multi-country analysis the postpartum contraceptive uptake is generally low in many low- and middle-income countries[18]. The common barriers in these settings include difficult geographical access, limited method choice, financial costs, the status of women, medical and legal restrictions, provider bias, fear of side effects and misinformation, some of which were also highlighted in our findings[19].

Different approaches have been tested such as group counseling and inclusion of males in contraceptive decision-making and should be applied based on specific context of the country[20,21]. Given the misperceptions around contraceptive use and the highlighted role of men in our study, comprehensive counseling and inclusion of partners in this process should be considered for future programs. It should also be noted that we conducted our study in an urban setting and the role of the partners can be even a greater factor in rural areas. A survey examining the factors influencing the intentions of women to adopt postpartum family planning in rural Ghana found that most women (90.5%) who wanted to adopt a method reported that they would need the approval of their partners[10]. Furthermore, attention should be paid to counseling women with a poor perinatal outcome or early pregnancy loss as they may be more likely to desire to become pregnant again as early as possible compared to the women with live births[17].

Recent estimates indicate that Ghana is making progress with respect to achieving the MDG-5 with maternal mortality ratio of 350 per 100,000 live births[8]. However, this figure is still unacceptably high. Every pregnancy is an exposure to the risk of life-threatening conditions, such as maternal near miss or maternal death, especially in high maternal mortality settings[22]. While interventions to improve emergency obstetric care are important, preventive measures such as improving postpartum contraceptive uptake for women and couples, who choose to use it, should be instituted to further reduce the burden of severe maternal morbidity and mortality.

Conclusions

Postpartum family planning is one of the recommended evidence-based interventions to improve maternal health[7,23,24]. However, further evidence on how to better integrate family planning into maternal health services is still urgently needed[16]. Further research should consider integrating postpartum family planning consultations by linking available services such as reproductive health clinics at the facilities. This would alleviate the burden of rather than including additional tasks for the midwives and the doctors in the wards, and could be a sustainable solution in

such urban, high-volume settings. Such environment would also be more conducive to comprehensive counseling as well as inclusion of partners in the decision-making processes.

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Conflict of Interest

The authors have no conflict of interest.

Contribution of Authors

OT and MJH conceived and designed the study in collaboration with RMA and KAB. OT and KAB collected the data and OT and MJH conducted the analysis. OT prepared the first draft of the manuscript and MJH, RMA and KAB provided input.

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