ORIGINAL RESEARCH ARTICLE

Why some women deliver in health institutions and others do not: A cross sectional study of married women in Ghana, 2008

Marian E. Smith, Emmanuel O. Tawiah, Delali M. Badasu

Regional Institute for Population Studies, University of Ghana, Legon, Ghana.

***For correspondence:** *Email:* ewurabannerman@yahoo.com Tel: +233 245 161515

Abstract

Existing inequalities in an environment where men wield so much authority can have negative implications for women's reproductive health outcomes. Using a quantitative approach, the study explores the relationship between some selected socio-economic variables, women's status and choice of place of delivery. All three indicators of status employed by the study were significantly associated with whether a woman had an institutional delivery or not. This association however diminished after controlling for other confounding socio-economic variables. The findings indicate that a woman's status does not act independently to affect her choice of place of delivery but these effects are channelled through some socio-economic variables. Wealth and educational status of the women and their partners emerged predictors of choice of place of delivery. Expansion of economic opportunities for women, as well as female education must be encouraged. In addition, these should not be done in neglect of male education. (*Afr J Reprod Health 2012; 16[3]: 35-46).*

Résumé

Les inégalités qui existent dans un environnement où les hommes exercent tellement d'autorité peuvent avoir des conséquences négatives pour les résultats de santé des femmes en matière de reproduction. En utilisant une approche quantitative, l'étude explore le rapport entre certains variables socio-économiques sélectionnés, la situation des femmes et le choix du lieu d'accouchement. Tous les trois indices de la situation employés par l'étude étaient significativement associés au fait de savoir si une femme a eu un accouchement institutionnel ou non. Cette association a toutefois diminué après avoir pris en compte d'autres variables socio-économiques déconcertants. Les résultats indiquent que la situation d'une femme n'agit pas indépendamment pour influencer son choix du lieu d'accouchement, mais ces effets sont acheminés par l'intermédiaire de certaines variables socio-économiques. La richesse et le niveau d'éducation des femmes et leurs partenaires se sont révélés être des indices de choix du lieu d'accouchement. L'élargissement des possibilités économiques pour les femmes, ainsi que l'éducation des femmes doivent être encouragés. En outre, il ne faut pas accomplir tout ceci au détriment de l'éducation des hommes (*Afr J Reprod Health 2012; 16[3]: 35-46).*

Keywords: status, socio-economic variables, institutional delivery

Introduction

The review of the program of action of the 1994 International Conference on Population and Development, also known as the ICPD+5, emphasised the need to bridge gender inequalities and empower women as a means towards enhancing their reproductive lives, reducing poverty and ensuring sustainable growth of national economies. Drawing from this agenda, there has also been immense interest and quite a number of studies on women's reproductive health in Ghana within the framework of enhancing development and quality of lives of women in the past decade[1-6]. Despite these efforts, women in Ghana and some developing countries are still beset with varying expressions of reproductive health problems.

According to the 2009 demographic and health estimates, maternal mortality ratio in Ghana stands at 451 deaths per 100,000 live births[7]. This ratio is several times higher than rates in developed countries. For instance, for the same period, maternal mortality ratios for the United Kingdom and Sweden were 7 and 5 deaths per 100,000 live births respectively[8]. A number of studies have

shown that the use of maternal health facilities and supervision by skilled personnel during pregnancy and childbirth are proven effective ways to reduce maternal mortality[9-11]. In Ghana, 95.4 percent of women receive ante-natal check-ups from a skilled provider but a significantly lesser proportion (59 percent) deliver in health facilities under professional supervision[12].

Social, educational and economic inequalities are among the reasons why girls and women often do not utilize health services. In Ghana for instance, reproductive health seeking behaviour of women is greatly impeded by low levels of women's education, status and negative traditional beliefs and attitudes.[6] Women's status refers to the position or social standing of a woman within a social context. There is no common measurement of the concept of status[13]. The status a woman assumes in a social context is not determined primarily by her personal decision but also influenced by the gender hierarchies present in her society and the level of esteem accorded her by virtue of her gender [14, 15].

A common approach is where some researchers have used traditional measures like education, occupational status and income level[16, 17, 18]. Others have also used measurements which translate the degree of control of women over their own lives and the management of resources relative to that of men to represent status [19, 20, 21]. A broader approach is where researchers have used a combination of both approaches [22, 23]. Numerous studies have also established varying associations between women's status and various indicators of maternal health and other health-seeking behaviours[24,25,17,26-29]. Some studies have also highlighted the effect of women's demographic, socio-economic and household characteristics on maternal health indicators. For instance, in study conducted in Nigeria, the economic situation in the household and rural-urban residence emerged as strong predictors for utilization of maternal health services[30].

The discourse of finding explanations for the high maternal mortality rates in developing countries has moved from the woman's demographic and socio-economic characteristics to her power relational status particularly in settings where males have greater decision making power. It is against this background that the present study examines how women's perceived status with regard to power relations in their household of primary residence affects their choice of place of delivery. Based on available literature and theoretical considerations the following hypotheses are proposed under this study; Firstly, women with high status are more likely to have institutional deliveries as compared to their counterparts with low status, irrespective of their socio-economic backgrounds. Secondly, women with husbands/partners involved in more skilled occupations will be more likely to have institutional deliveries as compared to women whose husbands/partners are involved in less-skilled occupations.

Data and methods

The data used for this study are derived from the 2008 Ghana Demographic and Health Survey (GDHS). The 2008 GDHS is the most recent of such surveys that have been carried out since the 1980s at five year intervals and designed to provide information to monitor the population and health situation in Ghana. Similar surveys have been carried out in other developing countries. The study sample constitutes 1,815 married women aged 15-49 years, who have had children in the last five years preceding the survey. The analysis for the present study focuses on the most recent births. Married women were chosen for the study because of the possible existence of power relations within marriage. Moreover, marriages and sexual unions in sub-Saharan Africa have long been managed through strong patriarchal traditions that are characterised by comparatively greater male authority over reproduction and associated decisions[31]. The independent variables used in this study were grouped into two categories; the socio-economic characteristics of the women and their spouses and the status of the women as indicated by perception of violence against women status, reproductive right status and decision making status. The dependent variable is place of delivery either institutional or non institutional.

These three indicators of women's status were selected because they offer an opportunity to examine the status of women from different

domains. It can be argued that in households where women are active partakers in decision making on a number of factors, they may be more likely to make decisions regarding their reproductive health. The perception of violence against women indicator was determined based on the premise that when women reside in settings or are in marriages in which they do not justify violence or do not live in fear of it, they may have the opportunity to be autonomous. Such conditions may also enhance effective communication between spouses and consequently have positive implications for the women's health. Reproductive right status (ability to ask husband/partner to use condom) is an important measure of women's status in Ghana. Condom use has a dual purpose, namely, to prevent infection of STI's/HIV and to prevent unwanted pregnancies. However, there are barriers to the use of this method of family planning within marriages. Condom use in marriage accentuates an imputation of mistrust and other negative psychological stresses which make it difficult for women to negotiate for condom use.

To measure perception of violence against women status, married women were asked; "in your opinion, is a husband justified in hitting or beating his wife in the following situations; if she goes out without telling him, if she neglects the children, if she argues with him, if she refuses to have sex with him, if she burns the food. The responses to these questions were coded as 1 for =yes and 2 for = no. A scale was then created ranging from 5 to 10, where a score of 10 means disagreement with wife beating in all five situations and a score of 5 refers to agreement with wife beating on all five situations. Furthermore, new categories were created for these responses where a score of 5-6 is regarded as = low status, 7-9 scores as = middle status and a score of 10 as = high status.

The procedure used for computing the perception of violence against women status was followed for computing the decision making power variable. The questions asked in this case are about health care decisions, major household purchases, daily household needs and visits to relatives. The responses to these questions were previously coded as 1 for respondent, 2 for husband/partner, 3 for respondent & husband/partner jointly, 4 for someone else and 5 for other. For purposes of this study, the responses were recorded into respondent and respondent and husband/partner jointly (2) and all others (1). A score was also computed for this index ranging from 4 to 8, where a score of 8 implies women decided on all four issues either solely or with their partners and a score of 4 implies women had no role at all in making decisions on all four issues. Thus new categories were created for this variable, where 4-5 scores is low status, 6-7 is middle status and a score of 8 is high status.

To measure reproductive right status, a measurement comparable to the condom barrier scale was used. The condom barrier scale has been used to measure attitude to condom use that is determined by a number of barriers including religious, partner, motivational sexual pleasure among others[32, 33]. For the purposes of this study, a question was asked as to whether a wife can ask a husband to use a condom during sexual intercourse (reproductive right). The responses were coded as 1 for women who responded as yes, 2 for those who answered no, and 3 for depends/not sure representing high, low and middle status respectively. Taking into consideration the three indicators of status, that is perception of violence, decision making and reproductive right, a uniform recoding was done where all women belonging to a low status group were recorded as 0, with 1 and 2 for middle and high status respectively.

In addition to women's status variables, other predictor variables of interest include the woman's and her husband's/partner's educational and occupational statuses and household wealth status. Responses for place of delivery (the dependent variable) were classified into two; institutional and non-institutional. Institutional deliveries include deliveries that took place in government hospitals, polyclinics, government health centers, government health posts or community health posts. Non-institutional deliveries encompass deliveries that took place at home, either the respondent's or other home and either with or without the assistance of a Traditional Birth Attendant (TBA).

The control variables considered under this study are age of woman, age at first marriage, spousal age difference, religion, type of place of

residence and ethnicity. Ethnic considerations are important in studying the concept of status. The patrilineal or matrilineal orientation of a particular group may shape the gender norms of the people in this group. There are five main ethnic groups in Ghana namely, Akan, Ga/Dangme, Ewe, Guan and Mole-Dagbani. All ethnic groups are patrilineal except for the Akan and Guan who are matrilineal and bilineal respectively.

Descriptive statistics, namely frequencies and percentages, and binary logistic regression model were used to explore the relationships among the variables. All the data was analysed with the Statistical Package for Social Science (SPSS), version 16.0. A test of multi-collinearity was carried out to ensure that none of the predictor variables considered is strongly correlated with another. Only the percentage distributions of the variables of interest were shown in the subsequent tables. Other variables of interest which would have been relevant to this study but could not be measured or included were distance to the nearest health facility and utilization of antenatal care during pregnancy. Information on distance to the nearest health facility was not gathered and utilization of antenatal care by pregnant women in Ghana is almost universal which is not likely to show any variation in the analysis.

Results

The study population

Almost half of the women were between the ages 15 and 29 years. This is followed by a significant proportion, 38 percent, who are between the ages of 30 and 39 years. This goes to show that more than two-thirds of the women were in their active reproductive years. The cut off point for the women was age 49 and only 12.4 percent were between 40 and 49 years. Some studies have shown that age difference between spouses have important implications for a woman's status in the household which is evident in division of power and decision making in the household[34]. It can also be argued that in a society where the advantage of making decisions and controlling resources rest with the elderly, the wider the age gap, the higher the chances that power relations will be skewed in favour of the older person.

Approximately 47 percent of these women had the same age or were within a five year age range with their husbands/partners. Twenty six percent of the women had husbands who were 10 or more years older and only four percent of the women were older than their husbands. Age at first marriage for majority of these women (60.2 percent) was after 18 years and mean age of marriage is 19.3 years. Almost two-thirds of the married women are from the rural areas, 61.5 percent. Majority of these women were Christians (70.7 percent) followed by Muslims, 18.5 percent. The remaining constituents are traditionalists/ spiritualists and those with no religion representing 6.3 and 4.5 percent respectively. A significant proportion of the women in the sample are Akan, 44.8 percent.

A significantly lower proportion of the women, 4.4 percent, were employed as professional/technical/managerial and clerical workers as compared to their partners who constituted 22.8 percent. Wealth status was normally distributed across the sample. Approximately 46 percent (the highest percentage) of the respondents were employed in the sales and service sectors, whereas their partners were mainly involved in agricultural activities, 42.2 percent. The study has shown that, generally, married Ghanaian women occupy a high status in the household judging from the percentage of women in the high categories of each indicator of status. Sixty one percent and approximately 72 percent of the women indicated a high perception against violence and reproductive right status respectively.

There is an almost universal coverage of ante-natal care by pregnant women in Ghana. The percentage of women who received ante-natal care with their most recent births in the last five years preceding the survey were 97.8 percent for urban women and 93.9 percent for women in rural areas[12]. In spite of these figures, institutional deliveries within the same period were relatively lower, 59.7 percent, whereas 40.3 percent of the deliveries took place at home either the respondent's or other home.

Multivariate Analysis

Table 1 shows the parameter estimates for the effects of the various indicators of women's status

on use of institutional or non-institutional place of delivery. Discussions will be done with reference to institutional deliveries. The different dimensions of women's status were significantly associated with choice of place of delivery. At a 99 percent confidence level, women who reported a high perception of violence against women status (women who highly disagree with husband/partner beating) and reproductive right status (women who could negotiate for condom use) were 1.81 and 2.07 times respectively more likely to have institutional deliveries as compared to their counterparts who reported middle statuses. Again, women with a high decision making status were 1.30 times more likely to have institutional deliveries than women with middle status in the same category.

The main aim of the second stage of analysis is to estimate the net effect of the socio-economic characteristics of the women and their husbands/partners vis-a-vis her status in the household. However, in so doing, the afore-mentioned background characteristics of the woman (age, age at first marriage, spousal age difference, ethnicity, religion and type of place of residence) believed to have confounding effects on choice of place of delivery were controlled for. After controlling for each variable, the previously observed relationship between the different dimensions of status and choice of place of delivery diminished. Wealth status, educational status of both the woman and her husband emerged as predictors of the outcome variable as shown in Table 2.

Table 1: Parameter estimates of the effects of the different dimensions of status on choice of place of delivery

Variables	Beta	S.E	Wald stat.	Exp (B)	Count (%)
Perception of violence status					
Middle (RC)	-	-	39.186	1.000	378 (**20.8**)
Low	-0.061	0.150	0.166	0.941	325 (**17.9**)
High	0.595	0.122	23.805	1.813**	1112 (**61.3**)
Reproductive right status					
Middle (RC)	-	-	37.657	1.000	71 (**3.9**)
Low	0.089	0.246	0.132	1.094	436 (**24.0**)
High	0.727	0.235	9.600	2.069**	1308 (**72.1**)
Decision making status					
Middle (RC)	-	-	6.814	1.000	673 (**37.1**)
Low	0.000	0.141	0.000	1.000	290 (**16.0**)
High	0.261	0.110	5.659	1.298*	852 (**46.9**)
Constant	-0.579	0.251	5.315	0.561	-
Total Count					1815(**100**)

R^2 = coefficient of determination = 0.070 * significant at α <0.05 **significant at α <0.01 RC=Reference Category

Table 2: Net effect of independent variables on choice of place of delivery

Variables	B	S.E	Wald stat.	Exp (B)	Count/ (%)
Perception of violence status					
Middle (RC)	-		2.601	1.000	
Low	0.053	0.183	0.084	1.054	
High	0.225	0.153	2.154	1.252	
Reproductive right status					
Middle (RC)	-		6.039	1.000	
Low	-0.304	0.306	0.985	0.738	
High	0.043	0.292	0.022	1.044	
Decision making status					
Middle (RC)	-		0.192	1.000	
Low	0.011	0.761	0.004	1.011	
High	0.056	0.134	0.180	1.058	
Woman's education					
No education (RC)	-		17.487	1.000	515 **(28.4)**
Primary	0.200	0.169	1.390	1.221	421 **(23.2)**
Middle/JSS)	0.678	0.184	13.638	1.970**	667 **(36.7)**
Secondary + Higher	0.945	0.367	6.649	2.573**	212 **(11.7)**
Woman's occupation					
Not working (RC)	-		1.583	1.000	170 **(9.4)**
Prof/tech/manag/clerical	0.472	0.717	0.433	1.603	81 **(4.4)**
Sales and Services	0.043	0.240	0.032	1.044	827 **(45.6)**
Agric workers	-0.126	0.251	0.251	0.882	578 **(31.9)**
Manual workers	-0.016	0.299	0.003	0.984	159 **(8.7)**
Wealth status					
Richest (RC)	-		47.728	1.000	376 **(20.7)**
Poorer	-0.973	0.309	9.936	0.378**	361 **(19.9)**
Middle	-0.901	0.289	9.706	0.406**	332 **(18.4)**
Richer	-0.483	0.285	2.873	0.617*	379 **(20.9)**
Poorest	-1.938	0.337	33.128	0.144**	376 **(20.7)**
Partner's education					
No education (RC)	-		18.702	1.000	465 **(25.6)**
Primary	0.564	0.219	6.607	1.758*	140 **(7.7)**
Middle/JSS)	0.521	0.177	8.696	1.684**	746 **(41.4)**
Secondary + Higher	1.412	0.392	12.971	4.106**	464 **(25.6)**
Partner's occupation					
Prof/tech/manag/clerical(RC)	0.000		1.798	1.000	413 **(22.8)**
Sales and Services	0.167	0.251	0.446	1.182	250 **(13.8)**
Agric workers	-0.101	0.203	0.247	0.904	766 **(42.2)**
Manual workers	0.095	0.205	0.213	1.100	386 **(21.3)**
Constant	0.489	0.613	0.635	1.630	

R^2 = coefficient of determination = 0.363 * significant at $\alpha < 0.05$ **significant at $\alpha < 0.01$ RC=Reference Category

The odds of having institutional delivery were higher among women with middle/JSS and secondary/higher education as compared to women with no education. The same can be said for husband'/partner's educational status, where women whose husband's/partner's had secondary or higher education were 4.10 times more likely to have institutional deliveries as compared with women whose husbands/partners had no education. Wealth status was also significantly

associated with whether a woman will deliver in a health facility or not. The odds of delivering in a health facility decreased as level of wealth status decreased. For instance, women in the richer category had a 61 percent chance of delivering in a health institution whereas women in the poorest group had a 14 percent chance as compared to women in the richest category.

A regression analysis was again carried out to assess how the socio-economic variables of the women and their partners will perform as predictors of status in the household (results shown in Table 3). A single composite variable was computed using the three different dimensions of status, termed overall women's status. The reference category for the outcome variable was middle status. A woman's educational attainment and wealth status are the significant predictors of overall status. The odds of having a high status increased as women's educational status increased. A similar relationship was observed between wealth status and women's overall status. This was much more evident between the poorer and poorest group, where those in the former were 2.48 times more likely to have a higher status than the former. Within the other categories, women who were not working were less likely to have a high status than women who were in manual occupations and women whose husbands were involved in professional/technical and managerial occupations were more likely to have a high status than women whose partners were engaged in manual occupations.

Discussion and Conclusion

Until recently, proxy measures such as education and occupation have been used to examine the concept of status and how it affects the reproductive health of women. In recent times, however, attention has focused more on constructive measures that tap into a woman's relative position in her household of primary residence. The present study examined how women's socio-economic status vis-a-vis their relative status in the household, conceptualised as perception of violence against women status, reproductive right status and decision making status influence use or non-use of an institutional facility during delivery. Bearing in mind the predominantly patriarchal social norms that pertain in the study area, the socio-economic characteristics of the husband/partner were included in the study. It is expected that examining the characteristics of husband/partner can contribute to our understanding of any possible variations in choice of place of delivery that emerge.

Two models were used; the unadjusted model which shows the parameter estimates of the various indicators of women's status on use and non-use of institutional or non-institutional places of delivery and the adjusted model which includes parameter estimates of effect of women's status, socio-economic indicators on same dependent variable. In the unadjusted model, women with high status were more likely to have institutional deliveries. This observation was however weakened after controlling for the socio-economic variables. Wealth status, educational status of both respondents and their spouses were found to be statistically significant with her status and choice of place of delivery.

Thus it can be concluded from the study that the status of women in their households of primary residence does not act independently to affect the women's choice of place of delivery, but function together with other socio-economic indicators.

This finding which depicts a weak effect of women's status is, however, quite consistent with other studies in Asia and sub-Saharan Africa[29, 11, 17]. Similarly some of the indicators employed by these studies to represent status included women's involvement in decision making, freedom of movement and discussion of family planning with partners, among others. Probably, this weak effect of women's status on choice of place of delivery may be due to the fact that the measurement of status adopted in this study may not be an all inclusive measurement of the power relations in marriage. The nature of the data limited the study to the three status measurements that were used. Due to the secondary nature of data used, information on status was limited to these three whereas there could be other indicators that tap into a woman's status in the household.

Table 3 Net effect of socio-economic indicators on overall status

Variables	Low status			High status		
	Beta	**S.E**	**Exp (B)**	**Beta**	**S.E**	**Exp (B)**
Woman's education**						
No education	1.358	0.47	3.887**	-0.920	0.22	0.398**
Primary	0.970	0.467	2.638*	-0.893	0.21	0.409**
Middle/JSS	0.640	0.453	1.897	-0.763	0.189	0.466**
Secondary + Higher (RC)	-	-	1.000	-		1.000
Woman's occupation						
Not working	0.637	0.296	1.891*	-0.805	0.224	0.447**
Prof/tech/manag/clerical	0.007	0.772	1.080	0.424	0.324	1.529
Sales and Services	0.068	0.263	1.071	0.126	0.164	1.135
Agric workers	0.078	0.271	1.081	0.097	0.186	1.102
Manual workers (RC)	-	-	1.000	-	-	1.000
Partner's education						
No education	0.437	0.351	1.548	0.326	0.219	1.386
Primary	0.475	0.385	1.608	0.580	0.251	1.786*
Middle/JSS	0.094	0.327	1.098	0.419	0.186	1.521*
Secondary + Higher (RC)	-	-	1.000	-	-	1.000
Partner's occupation						
Prof/tech/manag/clerical	0.372	0.232	1.45	0.374	0.141	1.454**
Sales and Services	0.357	0.254	1.429	0.199	0.159	1.221
Agric workers	0.125	0.206	1.133	0.069	0.142	1.071
Manual workers (RC)	-	-	1.000	-	-	1.000
Wealth status**						
Richest	-0.477	0.296	0.62	0.805	0.199	2.237
Richer	0.063	0.185	1.065	0.337	0.159	1.401*
Middle	-0.193	0.22	0.825	0.392	0.172	1.480*
Poorer	-0.151	0.251	0.86	0.908	0.185	2.478**
Poorest(RC)	-	-	1.000	-	-	1.000
Intercept	-2.458	0.596	-0.161	-0.161	0.320	

R^2 = coefficient of determination = 0.155 * significant at $\alpha < 0.05$ **significant at $\alpha < 0.01$ RC=Reference Category

The prominent role of educational status of both women and their husbands/partners in determining whether a woman will deliver in a health institution cannot be over estimated. This corroborates other findings from studies done in other developing countries that confirm the role education plays in achieving positive reproductive health outcomes[35, 36, 37]. Other studies have also shown that educated women have more freedom in decision-making and greater reproductive bargaining power than uneducated women[17, 22, 38]. Education also provides women with skills for making informed or intelligent decisions. Moreover, it increases women's confidence to act on these choices in the frequent face of opposition within or outside the family[39]. Education is likely

to put women at an economic advantage, enhance their social confidence and encourage them to accord a higher value to their welfare and health. In addition, education also has the propensity to heighten women's knowledge about the risks associated with non-institutional deliveries. The educational status of the husband/partner is equally important in promoting maternal health. Following from the results, an educated husband/partner is likely to appreciate the benefits of women's delivery in a health facility, thereby encouraging his wife to do so. Expectedly income levels of educated husbands/partners may be higher than that of uneducated women which will make it easier for women with husbands/partners in the former group to afford receipt of professional care during delivery.

Associations were found between disparities in wealth status and choice of place of delivery, where deliveries in health institutions decreased with decreasing wealth. This finding corroborates the findings from another study in Ghana[40]. The study indicated that women in the intermediate and higher wealth quintiles were more likely to deliver in health institutions. Results of another related study conducted in rural communities of Bolgatanga in northern Ghana revealed that wealth and education were significant predictors of deliveries in health facilities[41]. After the implementation of the fee exemption policy in Ghana, it was recorded that the proportion of deliveries in health facilities increased particularly among the poorest and least educated women[42]. But in some circumstances, in spite of the introduction of the free maternal care scheme, women may still not use such facilities when they cannot afford the cost of transportation to health facilities or when physical access to them is difficult.

The question is whether it is an issue of lack of financial resources to pay for these services as these services are now provided freely or a question of financial or physical access to the health facilities. In a related study in Ghana, the findings showed that among the poor who are often in the rural communities, maternal health facilities are so remote that in the event of complications during labour, women are transported on bicycles to the nearest health facilities which are often miles away[43]. Thus, inadequate transportation options available in these rural areas make commuting services relatively expensive. These circumstances may compel a lot of women to prefer delivering at home to institutional delivery. The distribution of wealth status with respect to rural and urban settlements in Ghana showed that 34.1 percent and 31.0 percent of rural dwellers were in the poorest and poorer groups compared to 1.3 and 4.7 percent respectively in urban areas.

Generally however, regional and national reports in Ghana have indicated an increase in institutional deliveries after the introduction of the free maternal health care policy. A study conducted in the Central and Volta regions of Ghana indicated that health facility-based deliveries in these two regions increased by 33.6 percent and 10.6 percent respectively after the implementation of the exemption policy[44]. Despite these increases home deliveries still remain high. Many reasons account for this and one of them is financial barrier that often limits these poor women's accessibility to delivery at institutional facilities.

Non-institutional delivery which is usually characterised by unskilled assistance is a contributory factor to high maternal mortality rate. In an environment where men have greater decision making power in the household and society, the findings of this study contributes to the understanding of the relationship between women's status, some socio-economic variables of the women and their spouses and use of institutional delivery points.

Recommendations

The major findings of the study indicate that wealth and education were not only important predictors of deliveries in health facilities but these socio-economic characteristics are also equally important in influencing the status the woman occupies in her household. Women who performed well on wealth status, had higher education and women with partners with higher education were more likely to have a high status on all the three dimensions considered. Therefore efforts to

improve educational and income status of women should be strengthened. Expanding the formation and services of micro credit unions among the poor can help women acquire loans, save towards emergencies and working capital and consequently increase their financial accessibility to health facilities.

From the policy point of view, more comprehensive educational programmes should be drawn at targeting girls as a means of encouraging them to take control of their reproductive lives. There is the need for the already existing educational reform programmes in the country to expand in scope to include over-age out of school children especially girls. Men's education should also be given much attention as this will encourage male involvement in women's issues and reproductive decisions.

By way of recommendations, in efforts to encourage institutional delivery and reduce maternal mortality, it is necessary to conduct an in-depth inquiry into the conditions underlying choice of home deliveries. Do women arrive at these decisions out of freewill or do pertaining conditions compel them to take such decisions. It is very easy to assume women will deliver in health facilities if given all the necessary motivating conditions or incentives. But this may not be the case as there is evidence to suggest that some women will prefer home deliveries for good reasons in their opinion. A study outlining advantages and disadvantages of home birthing revealed some reasons why women will prefer home delivery to delivering at health facilities. The author explains that home birthing enables the woman to maintain control over everything, provides the privacy and comfort of a familiar surrounding environment and also allows labor to progress normally with minimal or no medical interventions and these medical interventions are sometimes unnecessary[45].

More intensive research should be conducted on the bargaining power within sexual relationships as greater decision making power rests with men. Exploratory qualitative study will be needed to understand the processes which influence decisions for home birthing and provide evidence for appropriate policy interventions to be enacted.

By so doing, more comprehensive measurements and conceptualization of power, decision-making dynamics, and negotiations within the household as well as rigorous measurements thereof can be explored to understand the medium through which women's status affect reproductive health behaviour.

Contribution of Authors

MES was involved in the conceptualisation of the study, analysis of data and preparation of the manuscript. EOT and DMB were also involved in the conceptualisation and review of the study at various drafting stages. The final version of the manuscript was read and approved by all authors.

Acknowledgement

Appreciation is extended to the cadre of lecturers at RIPS, who in one way or the other contributed to shaping and sharpening of a budding research skill. Special thanks go to colleagues whose comments and contributions helped clarify the study, particularly at the conceptualisation stage. Acknowledgement is also extended to appreciate the sponsorship offered by Hewlett Foundation during the study.

References

1. Phillips JF, Bawah AA, Binka FN. Accelerating reproductive and child health program development: The Navrongo Initiative in Ghana. Working Paper. Population Council. New York 10017, USA. 2008.
2. Ardayfio-Schandorf E. Violence against women: a statistical overview, challenges and gaps in data collection and methodology and approaches for overcoming them. The Ghanaian case study. Expert paper. UN Division for the advancement of women in collaboration with: Economic Commission for Europe (ECE) and World Health Organization (WHO). 11-14 April, 2005, Geneva, Switzerland.
3. Awusabo-Asare K, Abane AM and Kumi-Kyereme A. Adolescent Sexual and Reproductive Health in Ghana: A Synthesis of research Evidence. Occasional Report.2004, No. 13.
4. Takyi, BK. Religion and women's health in Ghana: Insights into HIV/AIDS preventive and protective behaviour. Soc. Sci. Med. 2003; 56(6): 1221-34.

5. Debpuur C, Phillips, JF, Jackson EF, Nazzar A. Ngom P and Binka FN. The impact of the knowledge and use, reproductive preferences, and fertility. Studies in family planning 2003; 33(2): 141-164.
6. Ngom P, Debpuur C, Akweongo P, Adongo P. and Binka FN. Gate-keeping and women's health seeking behaviour in Navrongo, Northern Ghana. Afr J Reprod Health 2003; 7(1): 17-26.
7. MEASURE DHS. report. ICF Macro. Calverton. .2009. USA. http:// www.measuredhs.com/pubs/pdf/FR 227/FR 227.pdf.
8. United Nations Children Fund. Official Summary. The State of the World's Children Report. Oxford University Press. 2009.
9. Mba CJ. Upscaling community-arranged preparedness for preventing maternal mortality in Ghana: A case study of Keta and Akatsi Districts of Volta Region. Journal of International Women's Studies 2010; 23: 75-80.
10. Ronsmans C, Scott S, Qomariya SN, Achadi E, Braunholtz D, Marshall T, Pambdi E, Witten KH and Graham WJ. "Professional assistance during birth and maternal mortality in two Indonesian districts." Bulletin of the World Health Organization, 2009; 87(5): 405-484.
11. Furuta M and Salway S. Women's position within the household as a determinant of maternal health care use in Nepal. International Family Planning Perspectives, 2006; 32(1): 17-27.
12. Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro. 2009. Ghana Demographic and Health Survey 2008. Accra, Ghana: GSS, GHS, and ICF Macro.
13. Oppong C. and Abu K. Seven roles of women: Impact of education, migration and employment on Ghanaian mothers. International Labour Organisation. 1987.
14. Ghuman SJ, Lee HJ and Smith HL. Measures of women's autonomy according to women and their husbands: Results from five Asian countries. Population Studies Center, University of Pennsylvania, 2002.
15. Mistry R, Galal O, and Lu M. Women's autonomy and pregnancy care in rural India: A conceptual analysis. Social Science and Medicine 2009; 69: 926-933.
16. Roy K, and Chaudhuri A. 'Influence of socio-economic status, wealth and financial empowerment on gender differences in health and health care utilization in later life: evidence from India." Social science & Medicine 2008; 66: 1951-1962.
17. Riyami AA, Afifi M, Mabry RM. Women's Autonomy, Education and Employment in Oman and their Influence on Contraceptive Use. Reproductive Health Matters, 2004; 12(23):144-154.
18. Defo BK. Effects of socioeconomic disadvantage and women's status on women's health in Cameroon.Soc. Sci. Med, 1997; (44)7, 1023-1042.
19. Mullany BC, Hindin MJ and Becker S. Can women's autonomy impede male involvement in pregnancy health in Katmandu, Nepal. Social Science & Medicine 2005; 61(9): 1993-2006.
20. Pallitto CC and O'Campo P. "Community level effects of gender inequality on intimate partner violence and unintended pregnancy in Columbia: testing the feminist perspective." Social Science and Medicine 2005; (60): 2205-2216.
21. Schuler RS, Hashemi SM and Riley AP. "The influence of women's changing roles and status in Bangladesh's fertility transition: Evidence from a study of credit programs and contraceptive use." World Development 1997; 25(4), 563-575.
22. Beegle K, Frankenberg E, and Thomas D. Bargaining power within couples and use of prenatal and delivery care in Indonesia. Studies in family planning 2001; 32(2): 130-146.
23. Hindin M. Women's autonomy, women's status and fertility related behaviours in Zimbabwe. Population Research and Policy Review, 2002; 19: 255-282.
24. Lichuan T, Jianghong L, Kaining Z, and Philip G. Women's status, institutional barriers and reproductive health care: A case study in Yunnan, China. Health Policy, 2007; 84: 284-297.
25. Osemwenkha SO, Gender issues in contraceptive use among educated women in Edo State, Nigeria. Afr Health Sci.2004; 4(1): 40-49.
26. Li J, Gender inequality, family planning and maternal and child care in a rural Chinese county. Social Science & Medicine 2004; 59(4): 695-708.
27. Bhatia, JC and Cleland J. Determinants of maternal care in a region of South India. Health Transition Review, 1995; 5: 127-142.
28. Becker S, Becker-Fonseca F, and Yglesias-Schenck C. Husbands' and wives' reports of decision making power in Western Guatemala and their effects on preventive health behaviour. Social Science & Medicine 2006; 62: 2313-2326.
29. Fotso, J.C., Ezeh, A.C., and Essendi, H. Maternal health in resource-poor urban settings: how does women's autonomy influence the utilization of obstetric care services? Reproductive Health 2009; 6 (9).
30. Babalola, S. and Adesegun, F. Determinants of use of maternal health services in Nigeria- looking beyond individual and household factors. BMC Pregnancy and Childbirth 2009; 9:43.
31. McCloskey LA, Williams C. and Larsen U. Gender inequality and intimate partner violence among women in Moshi, Tanzania. International Family Planning Perspectives 2005; 31(3): 124-130.
32. Doyle SR, Calsyn DA and Ball, SA. Factor structure of the condom barrier scale with a sample of men at high risk of HIV. Assessment report 2009; 16(1): 3-15.
33. Adegbenga MS. Developing a scale for measuring the barriers to condom use in Nigeria. Bulletin of the World Health Organisation 2001; 79(10): 926-932.
34. Erulkar A. and Ayuka F. Addressing early marriages in areas of high HIV prevalence: A program to delay marriage and support married girls in rural Nyanza, Kenya. 2007; Brief no. 19.

35. Ahmed S, Creanga AA, Gillespie DG, Tsui, AO. Economic status, Education and Empowerment: Implications for maternal health service utilization in developing countries. PLoS ONE 2010 5(6): e11190.doi:10137
36. Munsur AM, Atia A, and Kazuo, K. Relationship between educational attainment and maternal health care utilization in Bangladesh: Evidence from the 2005 Bangladesh Household Income and Expenditure Survey. Research Journal of Medical Sciences 2010; 4(1): 33-37.
37. Sharma SK, Sawangdee T, Sirirassamee B. Access to health: women's status and utilization of maternal health services in Nepal. J Biosoc Sci 2007; 39(5): 671-92.
38. Morgan SA and Niraula B. Gender inequality and fertility in two Nepali villages. Population and Development Review 1995; 21(3).
39. Basu, AA. Why does Education lead to lower fertility? A Critical Review of Some of the Possibilities. World Development, 2002; 30(10): 1779-1790.
40. Nketiah-Amponsah, E and Sagoe-Moses,I. Expectant mothers and demand for institutional delivery: Do household income and access to health information matter? Some insight from Ghana. European Journal of Social Sciences 2009; 8(3): 469-482
41. Nketiah-Amponsah E. Economic Analysis of Less than Five Mortality and Health Seeking Behaviour-Evidence from Ghana. Cuvillier Verlag-ISBN: 978-3-86 955-241-5; 2010
42. Penfold S, Harrison E, Bell J and Fitzmaurice, A. Evaluation of the delivery fee exemption policy in Ghana: Population Estimates of Changes in Delivery Service Utilization in Two Regions. Ghana Medical Journal 2007; 41(3): 100-109.
43. Perschon JH, Hertel C and Holst G. Healthcare Transport in Africa. Facts and Main Findings from ITDP Health care projects in Africa. 2003-2007.Institute for Transportation and Development Policy. Europe. 2008.
44. Bosu WK, Bell JS, Armar-Klemesy M, and Tornui A. Effect of delivery care user fee exemption policy on institutional maternal deaths in the Central and Volta Regions of Ghana. Ghana Med J 2007; 41(3): 118-124.
45. Jones P. Advantages and Disadvantages of Birthing at home, Birth Center, and Hospital. Women's Health and Birth Care 2009; (713): 529-5131.