

Original Article

Influence of Health Decision Making on Maternal Complications among Women Delivered at a General Hospital, North-Western Nigeria

R Abubakar, S Yohanna¹, H Zubairu

Department of Family Medicine, Barau Dikko Teaching Hospital, Kaduna,
¹Department of Family Medicine, Bingham University Teaching Hospital, Jos, Nigeria

Received:
23-Dec-2018;
Revision:
09-Apr-2019;
Accepted:
03-Feb-2020;
Published:
04-May-2020.

ABSTRACT

Background: Low status of women and lack of decision making in utilization of maternal healthcare services are important factors influencing maternal complications. Antenatal care services and delivery in a health facility under the supervision of a skilled birth attendant are important ways of mitigating maternal complications. **Objective:** The objective of this study was to examine the influence of responsibility of health decision-making on maternal complications. **Methodology:** A cross-sectional study involving 206 women who delivered between February and April 2014 at the Yusuf Dantsoho Memorial General Hospital in Kaduna, Northwestern Nigeria. Consenting participants were recruited consecutively irrespective of their booking status. Data analyzed included the sociodemographic characteristics of the women, responsibility for health decision making, and pattern of obstetric complications. **Results:** Majority of the participants were Hausa ethnic group Muslims with no formal education. Most (54%) were unbooked. Healthcare decisions were made by the husbands in nearly 90% of the participants. Decision-making significantly influences the occurrence of maternal complications. **Conclusion:** The study showed a significant relationship between health decision-making and maternal complications. Women empowerment and partner participation in decision-making should be emphasized in maternal health education.

KEYWORDS: *General hospital, health decision-making, maternal complications*

INTRODUCTION

The low status of a women and lack of participation in reproductive health decision-making is one of the major factors contributing to primary delay in care seeking and accessing maternal health services, especially in the sub-Saharan Africa.^[1] Adequate antenatal care (ANC) and skilled obstetric assistance during delivery are among the strategies adopted by the Safe Motherhood Initiative to ensure healthy pregnancy and delivery.^[2]

The right of a woman in decision-making regarding her reproductive health issues was recognized at the 1994 International Conference on Population and Development (ICPD) in Cairo.^[3] The concept of reproductive health which includes gender equality in health decision-making was validated at this conference.^[3]

There is some evidence to suggest that within the household, family, and community settings, women in sub-Saharan Africa often have limited autonomy and control over their reproductive health decisions, and this often results in suboptimal use of skilled maternal health services.^[4-7] Indeed, a number of empirical studies in varying contexts have examined the role of women's autonomy and decision-making in facilitating access to skilled maternity care.^[4-10] Particularly, in sub-Saharan Africa, increased female autonomy has been linked to improved utilization of maternal health services.^[6-8,11] Studies in several sub-Saharan African

Address for correspondence: Dr. R Abubakar,

Department of Family Medicine, Barau Dikko Teaching Hospital, Kaduna, Nigeria.

E-mail: rasabubakar72@gmail.com

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Abubakar R, Yohanna S, Zubairu H. Influence of health decision making on maternal complications among women delivered at a general hospital, North-Western Nigeria. *Niger J Clin Pract* 2020;23:675-9.

Access this article online

Quick Response Code:



Website: www.njcponline.com

DOI: 10.4103/njcp.njcp_659_18

countries including Ethiopia, Gambia, Mali, Nigeria, Swaziland, Tanzania and Tunisia all indicate that women of childbearing age often do not decide whether or not to seek healthcare.^[7,8,12,13]

Analysis of gender inequities in women's access to reproductive health services between sub-Saharan African and South Asia found that women's abilities to control earnings and influence household decision-making particularly about healthcare are positive predictors for maternal healthcare utilization.^[14-16]

Most of these studies did not directly link the responsibility for health decision making with the maternal complications but to the utilization of maternal health services. However, this study tried to find the direct effect of responsibility for health decision making with the maternal complications.

METHODOLOGY

The study was carried out at the Obstetrics and Gynaecology Department of Yusuf Dantsoho Memorial General Hospital Kaduna, Northwestern Nigeria. The hospital is a public hospital located in Kaduna South Local Government Area of Kaduna State.

All consecutive eligible pregnant women (not psychotic and not under life threatening condition) who came for delivery at the hospital during February to April 2014 irrespective of their booking status were included till the desired sample size was met. The average number of deliveries is 313 in a month, with an average of 78 deliveries per week. Three consecutive participants who met the inclusion criteria were recruited daily by the researcher as they came to deliver in the labor ward, irrespective of their booking status. Thus, a total of 21 women were recruited in a week. A total of 189 women were recruited in 9 weeks while the remaining 17 women were recruited in the tenth week. The average length of stay in the hospital after a normal vaginal delivery before discharge is one hour, due to the large turnover of women coming to deliver in the hospital. Therefore, it was difficult to recruit only women who had just delivered their babies; hence, some women were recruited during labour and followed through one hour postpartum.

Considering the proportion of obstetric complications to be around 18% based on the previous study,^[17] the sample size was estimated to be 206 at 95% confidence level and 80% power with 10% default or incomplete data collection.^[18]

However ethical approval was obtained from the ethical committee of Ministry of health, Kaduna state on the 10th January, 2014. Ethical clearance was obtained from the Health Research Ethics Committee of Kaduna

State Ministry of Health. All participants participated voluntarily as they came in after signing the informed consent form.

The participants were interviewed by the researcher using a pretested questionnaire designed by the researcher. The data collected included sociodemographic characteristics of the participants such as age, ethnic group, religion, marital status, highest educational status, and their occupational status (whether they were unemployed or unskilled), skilled or professionals, obstetric complications in the current pregnancy such as antepartum/postpartum hemorrhages, prolonged obstructed labor, severe pre-eclampsia/eclampsia, retained placenta, sepsis, prolonged gestation, macrosomia, and medical conditions in pregnancy such as hypertension, diabetes etc., and responsible for health decision-making on the reproductive matters of the respondents such as decision on attending antenatal and delivery care services in the family.

Data was analyzed using EPI-INFO statistical package (3.5.3 January 2011 version). Sociodemographic variables were analyzed by descriptive statistics to determine their frequencies and proportions. Test of significance using Chi-square was done on obstetric complications and health decision-making in the family.

Definition of terms

In the context of this study, the following terms were defined:

- **Responsible for Health decision-making:** This refers to as person who usually decides on women's healthcare.
- **Unemployed:** Those that were not involved in any form of labor
- **Unskilled labor:** These are forms of labor with no qualification or hand-on experience attached to them
- **Skilled labor:** Labor based on hand-on experiences.
- **Professionals:** Labor based on qualifications.
- **Other ethnic group:** These include any other ethnic group apart from the three major ethnic groups in Nigeria: Hausa, Yoruba, and Igbo.

RESULTS

Complete data was available for all 206 participants and all were analyzed. Majority (74.8%) of the participants were of the Hausa ethnic group, Muslims (94.7%), and married (99.0%). 45.1% were unemployed and 58.7% were within the age group of 20–29 years. Most (62.1%) were from monogamous family background and (44.2%) had secondary education.

Table 1 outlines the sociodemographic characteristics of the participants.

Table 1: Sociodemographic characteristics of the study participants n=206

Parameters	n=206	Percentage
Age-group (years)		
15-19	29	14.1%
20-29	121	58.7%
30-39	49	23.8%
≥40	7	3.4%
Ethnic group		
Yoruba	12	5.8%
Igbo	3	1.5%
Hausa	154	74.8%
Others	37	17.9%
Religion		
Islam	195	94.7%
Christianity	11	5.3%
Marital status		
Married	204	99.0%
Single	1	0.5%
Separated	1	0.5%
Highest educational Status		
None	20	9.7%
Primary	50	24.3%
Secondary	91	44.2%
Tertiary	21	10.2%
Qur'anic	24	11.6%
Occupational Status		
Unemployed	93	45.1%
Unskilled labor	73	35.4%
Skilled labor	27	13.2%
Professional	13	6.3%

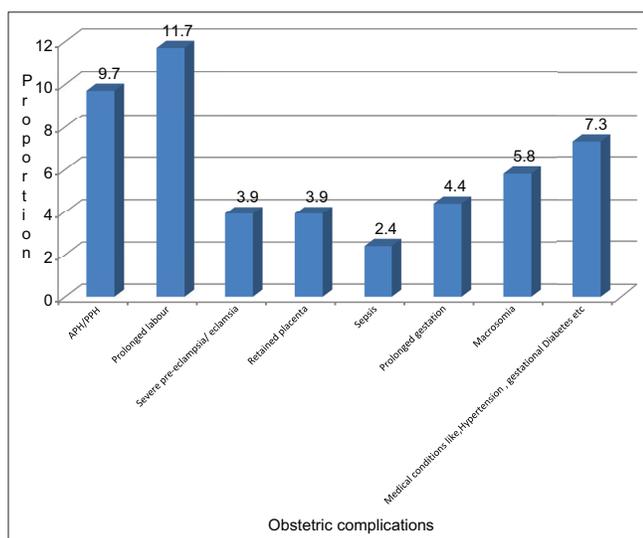


Figure 1: Pattern of obstetrics complications among the study participants

Pattern of maternal complications among the study participants

The main obstetric complication in the entire study was “prolonged labor” (11.7%), followed by antepartum/postpartum hemorrhages (APH/PPH) (9.7%); and then

“medical conditions like hypertension, gestational diabetes, etc., (7.3%).

Details of the pattern of obstetric complications among the study participants are depicted in Figure 1.

Responsible for health decision-making in the family

Health decisions were made by the husbands of 85% of the study participants; only 7% of the participants made health decisions by themselves; fathers in-law made the health decisions in 6% of the participants while others such as male relations made the health decisions in 2% of the participants [Figure 2].

Relationship between responsible for health decision making and obstetric complications

In cases of decision taken by fathers-in-law, 41.7% of the women had APH/PPH compared to the 6.7% of the women who made decision by themselves. More number of women suffered complications of several types when the fathers-in-law took the decisions; the difference was statistically significant for APH/PPH ($P = 0.0016$) as well as prolonged labor ($P = 0.049$; Table 2).

Table 2: Maternal complications and responsible for health decision making

Responsibility for health decisions	Maternal Complications									Total
	APH/PPH	Prolonged labor	Severe pre-eclampsia/eclamsia	Retained placenta	Sepsis	Prolonged gestation	Macrosumia	Medical conditions like Hypertension, gestational diabetes etc.	Others	
Self	1 (6.7%)	3 (20.0%)	0 (0.0%)	2 (13.3%)	0 (0.0%)	0 (0.0%)	2 (13.3%)	3 (20.0%)	0 (0.0%)	*15 (5.8%)
Father In-law	5 (41.7%)	4 (33.3%)	2 (16.7%)	0 (0.0%)	1 (8.3%)	1 (8.3%)	1 (8.3%)	0 (0.0%)	0 (0.0%)	*15 (5.8%)
Husband	14 (8.0%)	16 (9.2%)	6 (3.4%)	6 (3.4%)	4 (2.3%)	8 (4.6%)	8 (4.6%)	12 (6.9%)	2 (1.2%)	*174 (84.5%)
Others	0 (0.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	*2 (2.4%)
Test Statistic (χ^2) and P values for differences in Health decision makers and complications	$\chi^2=15.23$	$\chi^2=7.85$	$\chi^2=5.78$	$\chi^2=4.38$	$\chi^2=2.28$	$\chi^2=1.39$	$\chi^2=3.99$	$\chi^2=4.97$	$\chi^2=4.97$	
	$p=0.0016$	$p=0.049$	$p=0.123$	$p=0.225$	$p=0.517$	$p=0.709$	$p=0.263$	$p=0.174$	$p=0.174$	

Note: = Fisher’s Exact Test used because the expected cells values are less than 5 and some observed cells are 0. * The total in each column is the sum total of the respondents for that variable irrespective of the complication status

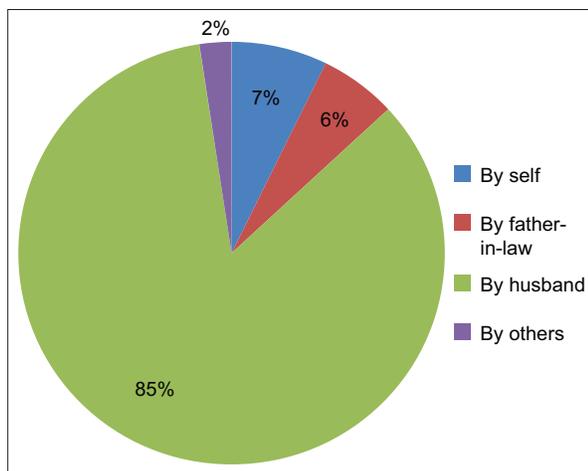


Figure 2: Responsible for health decision making in the family

DISCUSSION

This study explored the impact of responsible for health decision-making on maternal complications. There was a tendency for the women to have APH/PPH as well as prolonged labor when the fathers-in-law took the decision. Health decision was usually made by the husbands of the respondents in 85% and only 7% of them had the autonomy to make decision by themselves. This could be the reason for the occurrence of different types of maternal complications in the respondents.

A study conducted on South Asian countries reported a similar situation that women’s healthcare decisions were made without their participation in Nepal (72.7%), Bangladesh (54.3%), and India (48.5%).^[19]

The result of a study in Ghana indicated that women with health decision-making autonomy have higher tendency of health facility delivery as compared to those who are not autonomous.^[20] However, in this study in North-Western Nigeria, the effect of responsible health decision making on maternal complications was examined while the Ghana study was on Women’s Health Decision-Making Autonomy and Skilled Birth Attendance.

Similar observations in Ethiopia and Tajikistan also revealed the positive effects of women’s decision-making autonomy on their physical mobility.^[21,22] The physical mobility could directly affect utilization of maternal health services and, hence, maternal complications. However, the finding in the North-West Nigerian study was how the decision making by someone other than the woman herself directly affected maternal complication. However, the study showed a high proportion of unbooked women (54%) indicating poor utilization of antenatal care services.

Low education, lack of control over household assets, and overall lack of autonomy and low social position at both household and community levels are additional contributory factors.^[23,24] Evidence shows that communities where women’s decision making and movement is restricted, experience higher maternal mortality rates.^[25] Higher proportion of the respondents in this study had secondary education (44.2%) and were unemployed (45.1%). This could be contributory to the lack of autonomy in health decision-making in the respondents.

Limitations of the study

- The study was a hospital based study and it cannot be generalized as most deliveries take place at home and most women deliver in a health facility only when there are complications.
- The average length of hospital stay after delivery was an hour, this will exclude other complications that could occur after discharge leading to the underestimation of the prevalence of obstetric complications such as postpartum hemorrhage, puerperal sepsis etc.

CONCLUSION

This study has shown that health decision-making by family members other than the woman herself, especially decision-making by the fathers in-law, has significant influence on some maternal complications. There is need to empower women and increase their ability to make decisions concerning their health. This will involve engaging religious and traditional leaders on misconceptions on women's role in decision-making with regards to reproductive health.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Partnership for Reviving Routine Immunization in Northern Nigeria. Maternal, Newborn and Child Health Initiative. Factsheet: Emergency Obstetric Care-Delays in Reaching Care. Newge: PRRINN-MNCH; 2010.
2. Safe Motherhood Initiative Family Care International (SMFCI 2002). Safe Motherhood Inter Agency Group (IAG). Retrieved on 2016 Jul 23. Available from: http://www.Safe motherhood.org/facts_and_figures/initiative.htm.
3. International Conference on Population and Development (ICPD). Reproductive Health Right. Cairo: ICPD; 1994.
4. World Bank. World Development Report: Gender Equality and Development. Washington, DC: International Bank for Reconstruction and Development and World Bank; 2011.
5. Bloom SS, Wypij D, Das Gupta M. Dimensions of women's autonomy and the influence on maternal health care utilization in a North Indian city. *Demography* 2001;38:67-78.
6. Fotso J, Ezeh CA, Essendi H. Maternal health in resource-poor urban settings: How does women's autonomy influence the utilization of obstetric care services? *Reprod Health* 2009;6:9.
7. Woldemicael G, Tenkorang YE. Women's autonomy and maternal health-seeking behaviour in Ethiopia. *Matern Child Health J* 2010;14:988-98.
8. White D, Dynes M, Rubardt M, Sissoko K, Stephenson R. The influence of intrafamilial power on maternal health care in Mali: Perspectives of women, men and mothers-in-law. *Int Perspect Sex Reprod Health* 2013;39:58-68.
9. Jensen R, Thornton R. Early female marriage in the developing world. *Gend Dev* 2003;11:9-19.
10. Hou X, Ma N. The effect of women's decision-making power on maternal health services uptake: Evidence from Pakistan. *Health Policy Plann* 2012;42:1-9.
11. Stephenson R, Bescieri A, Clements S, Hennink M, Madise N. Contextual influences on the use of health facilities for childbirth in Africa. *Am J Public Health* 2006;96:84-93.
12. Moyer AC, Adongo BP, Aborigo AR, Hodgson A, Engmann MC, DeVries R. "It's up to the women's people": How social factors influence facility-based delivery in rural northern Ghana. *Matern Child Health J* 2013. DOI: 10.1007/s10995-013-1240-y.
13. Magoma M, Requejo J, Campbell OM, Cousens S, Filippi V. High ANC coverage and low skilled attendance in a rural Tanzanian district: A case for implementing a birth plan intervention. *BMC Pregnancy Childbirth* 2010;10:13.
14. Adegoke AA, Van Den Broek N. "Skilled birth attendance-lessons learnt," *BJOG: An International Journal of Obstetrics and Gynaecology*, vol. 116, no. 1, pp. 33-40, 2009. View at Publisher · View at Google Scholar · View at Scopus***
15. Dangal G, Bhandari TR. Women's autonomy: New paradigm in maternal health care utilization. *Global J Med Public Health* 2014;3. View at Google Scholar.
16. Kamiya Y. "Endogenous Women's autonomy and the use of reproductive health services: Empirical evidence from tajikistan," OSIPP Discussion Paper, DP-2010-E-010, 2010. View at Google Scholar.
17. Adelaja LM, Taiwo OO. Maternal and fetal outcome of obstetric emergencies in a tertiary health institution in South-Western Nigeria. *ISRN Obstet Gynecol* 2011;2011:160932.
18. Araoye MA. *Research Methodology with Statistics for Health and Social Sciences: Sampling Method*. Ibadan: Nathadex; 2004. p. 119.
19. Senarath U, Gunawardena NS. Women's autonomy in decision making for health care in South Asia. *Asia Pac J Public Health* 2009;21:137-43.
20. Edward KA, Augustine T, Kwaku K, Joshua A. Women's health decision-making autonomy and skilled birth attendance in Ghana. *Int J Reprod Med* 2016;2016. Article ID 6569514.
21. Kamiya Y. "Endogenous Women's autonomy and the use of reproductive health services: Empirical evidence from tajikistan," OSIPP Discussion Paper, DP-2010-E-010, 2010.
22. Tekelab T, Yadecha B, Melka AS. Antenatal care and women's decision making power as determinants of institutional delivery in rural area of Western Ethiopia. *BMC Res Notes*; 2015;8, article 769.
23. Furuta M, Salway S. Women's position within the household as a determinant of maternal health care viola Nyakato, Charles B. Rwabukwali. *Couple Relations, Decision-making Hierarchy and Use of Maternal Health Care in Rural Uganda* European Academic Research 2013;1:1245.
24. Parkhurst JO, Rahman SA. Overcoming access barriers for facility based delivery in low income settings: Insights from Bangladesh and Uganda. *J Health Popul Nutr* 2006;24:438-45.
25. Navarro V. What we mean by social determinants of health. *Int J Health Serv* 2009;39:432-41.