

Original Article

## Caesarean section on maternal request in north-eastern Nigeria: Women's knowledge, perception and attitude

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### ABSTRACT

**Background:** Caesarean delivery is the most widely performed major obstetric surgery globally and the incidence is rising. **Aim:** To document the views of pregnant women in two tertiary institutions in Nigeria towards caesarean delivery on maternal request. **Methods:** A cross-sectional study of pregnant women who attended the antenatal clinics of the University of Maiduguri Teaching Hospital and Federal Medical Centre, Yola from August to October 2009. **Results:** A total of 254 women were interviewed. The age ranged from 18-43 years with a mean of 28.56±5.60 years. The mean parity was 2.71±1.96. Majority, 204 (80.3%) respondents were aware of caesarean delivery with 90 (44.1%) of the information obtained from friends. Sixteen (6.3%) believed that having caesarean section was due to failure of reproductive function of a woman, with 106 (41.7%) citing destiny as reason for caesarean delivery. Most, 226 (89.0%), would not request for caesarean section. The commonest reason for caesarean section on maternal request was avoidance of labour pain, 16 (57.1%). Education ( $\chi^2 = 33.561$ ,  $P=0.000$ ) and occupation ( $\chi^2 = 26.205$ ,  $P=0.003$ ) had influence on knowledge of caesarean delivery. Education however, had no influence on maternal request for caesarean delivery ( $\chi^2 = 5.810$ ,  $P=0.121$ ). Although majority ( $\chi^2 = 2.589$ ,  $P=0.000$ ) would prefer vaginal delivery, none of the respondents would decline caesarean delivery if indicated. **Conclusion:** The knowledge, perception and attitude toward caesarean delivery are encouraging. The low number of maternal request for caesarean will serve as a benchmark for the future especially with the increasing penchant for smaller family sizes among the urban educated elites.

**Key words:** Caesarean section, knowledge, perception, attitude, maternal request

### INTRODUCTION

Caesarean delivery is the most widely performed major obstetric surgery globally and the incidence is rising. Over three

decades ago, efforts were made in Europe to maintain the rates of caesarean section to a single digit but they were largely unsuccessful.<sup>[1]</sup> In 1989, the caesarean section (C/S) rates in England was 12.1% and this figure has doubled in just a

decade.<sup>[1]</sup> A survey of British Consultants' attitudes towards C/S in 2005 found non-medical indications, including fear of litigation by the obstetricians, caesarean section on maternal request (CSMR), and inexperience by the junior specialist as largely responsible for the high C/S rates.<sup>[1]</sup> These were in addition to the known medical indications of dystocia, foetal distress, previous C/S and breech already reported from America in 1981.<sup>[1]</sup> Caesarean section on maternal request (CSMR) soon became a major contributor to the soaring C/S rates in the developed world since then. This partly resulted from the emphasis by governments in the west, on the importance of patient's autonomy and free health care services (NHS).<sup>[1,2]</sup>

In developing countries however, CSMR is a minor player in contributing to increase rates of C/S. If at all there is an increase, medical indications will dominate the list, because of the background poor antenatal care services, fewer emergency obstetric care facilities and low numbers of Skilled Birth Attendants.<sup>[3,4]</sup> This is in addition to the negative perception of our women to C/S.<sup>[5,6]</sup> Caesarean section is costly and women play little role in decision taking particularly in emergency situations, especially in the Northern part of Nigeria where this study was carried out. With the current drive in women empowerment and globalization, the knowledge of C/S and CSMR among Nigerian women, particularly from the North may be underestimated.

This study, therefore, sought to explore the current knowledge of C/S and CSMR among pregnant women in two referral centres in North eastern Nigeria.

## METHODOLOGY

This cross sectional, questionnaire-based study was undertaken to determine the views of pregnant women to caesarean delivery in two tertiary health institutions in north eastern Nigeria; the University of Maiduguri Teaching Hospital and Federal Medical Centre Yola. The former is the only functional teaching hospital in north eastern Nigeria while the latter is the only tertiary health facility in Adamawa state. An estimated sample size of 254 was obtained

using a caesarean section prevalence rate of 16.6% from a previous study<sup>[7]</sup> in the south-west Nigeria. All consenting women attending antenatal clinic of Federal Medical centre Yola and University of Maiduguri teaching hospital between August and October 2009 were consecutively recruited until the sample size was reached. Questionnaires were administered after a pre-test, to 254 of 1250 parous women seen at the centres over the period of study. Those who had no prior delivery were excluded from the study. No participant declined participation in the study. Respondents were asked about their demographic characteristics, previous caesarean deliveries, knowledge of and source of information on caesarean delivery, their views on caesarean delivery, whether or not they will accept caesarean delivery and if they will request for caesarean delivery. The research and ethical committee of the hospitals approved the study.

## Statistical analysis

The information obtained were analyzed using SPSS version 16 (SPSS, Inc, Chicago, IL). Chi –square test was used to determine significance and a *P*-value <0.05 was considered significant.<sup>[8,9]</sup>

## RESULTS

Two hundred and fifty four respondents were interviewed during the three months period of study. The socio-demographic characteristics of the respondents are shown on table 1. The age ranged from 18-43 with a mean of 28.56±5.602years. Majority, 252 (99.2%), were married. The parity ranged from 1-9 with a mean of 2.71 ± 1.956. Most, 222 (87.4%), had at least secondary education with 20(7.9%) being non literate. Most of the clients, 124 (48.8%), were housewives. Majority, 134 (52.8%), of those interviewed were muslims. Only 20 (7.9%) have had previous caesarean delivery.

Table 2 shows the knowledge and source of information about caesarean section. Most respondents, 204 (80.3%), knew about caesarean section and most of the information was obtained from friends, 90 (44.1%), and health care workers, 66(32.4%). Only 36 (17.6%) obtained the information from the antenatal clinic. An

insignificant number, 28(11.0%) would request for caesarean section without medical indication and the commonest

reason for the request was avoidance of labour pain 16 (57.1%), as depicted in table 3.

**Table 1: Socio-demographic characteristics of respondents (n=254)**

Characteristics	Number	Percentage
<b>Age (years)</b>		
<20	8	3.1
20-24	58	22.8
25-29	82	32.3
30-34	58	22.8
35-39	36	14.2
≥40	12	4.7
<b>Marital status</b>		
Single	2	0.8
Married	252	99.2
<b>Parity</b>		
1	102	40.2
2-4	106	41.7
>5	46	18.1
<b>Educational status</b>		
Non literate	20	7.9
Primary	12	4.7
Secondary	116	45.7
Tertiary	106	41.7
<b>Occupation</b>		
Applicant	6	2.4
Housewife	124	48.8
Business	42	16.5
Civil servant	68	26.8
Student	14	5.5
<b>Religion</b>		
Christian	120	47.2
Muslim	134	52.8
<b>Previous caesarean delivery</b>		
Yes	20	7.9
No	234	92.1

**Table 2: Knowledge and source of information of caesarean delivery**

Variable	Number	Percentage
<b>Knowledge</b>		
Yes	204	80.3
No	50	19.7
<b>Total</b>	<b>254</b>	<b>100</b>
<b>Source of information</b>		
Friend	90	44.1
HCW	66	32.4
ANC	36	17.6
Relative	10	4.9
School	2	1.0
<b>Total</b>	<b>204</b>	<b>100</b>

HCW- health care worker, ANC- antenatal clinic

**Table 3: Reasons for maternal request of caesarean delivery (n=28)**

Reason	Frequency	Percentage
Avoidance of labour pain	16	57.1
Long history of infertility	6	21.4
Previous bad experiences	4	14.3
Safety of my baby	2	7.1

**Table 4: Variables that influence knowledge of caesarean delivery**

Variable	Knowledge		Total
	No	Yes	
<b>1. Education</b>			
None	6	14	20
Primary	6	6	12
Secondary	34	82	117
Tertiary	4	102	106
<b>Total</b>	<b>50</b>	<b>204</b>	<b>254</b>
	$\chi^2=33.561, P=0.000$		
<b>2. Occupation</b>			
Applicant	0	2	2
Business	14	28	42
Civil servant	2	66	68
Student	4	14	18
Housewife	30	94	124
<b>Total</b>	<b>50</b>	<b>204</b>	<b>254</b>
	$\chi^2=26.205, P=0.003$		

Table 4 shows that education ( $\chi^2 =33.561, P=0.000$ ) and occupation ( $\chi^2 =26.205, P=0.003$ ) had significant influence on knowledge of caesarean delivery. Education, however, had no influence on maternal request for caesarean delivery ( $\chi^2 =5.810, P=0.121$ ). Although majority, 226(89%), would prefer vaginal delivery, none of the respondent would decline caesarean delivery if there is an indication to do so ( $\chi^2 =2.589, P=0.000$ ).

## DISCUSSION

With improvement in the number of pregnant women attending antenatal clinic in developing countries including Nigeria,<sup>[10]</sup> health education during the clinic period on modes of delivery should be able to correct misconceptions and myth about caesarean section. The majority of our respondents (80.3%) have knowledge about caesarean section. This is similar to a study from the south-west Nigeria<sup>[6]</sup> where all the participants had knowledge of caesarean

section. The knowledge and level of awareness of the respondents towards caesarean delivery in our study is quite impressive, especially giving the background poor socio-economic indices of the region.<sup>[3]</sup> However, the study went further to expose an existing gap between having the knowledge, and knowing the correct indications for C/S.

Since all the respondents were recruited from the antenatal clinic (ANC), it is expected that the source of information, for the majority, will be from the clinic. However, only 17.6% of the respondents got their information from the ANC, with most getting it from their friends and other health care workers. This might suggest that our ANCs are not doing enough, in informing and educating women, about relevant and important things they need to know about pregnancy and childbirth. It is common knowledge that information obtained from friends, might be incorrect or incomplete with its attendant consequences, as seen by the participant's response to C/S in this study.

Similar to findings from other studies<sup>[6,11]</sup> where majority of women would not request for C/S, this study revealed that about 89% would not request for C/S on their own. Reasons like normal route of delivery, early recovery/discharge from hospital and previous vaginal birth, were cited as reasons for preference of vaginal birth over C/S in a previous study<sup>[11]</sup>, although our study did not enquire about that. Those that preferred vaginal delivery however, were not averse to the operation, if medically indicated. They view it as the will of God or altogether, destiny. This is contrary to the views from the south-west Nigeria where C/S is seen as a reproductive failure or taboo.<sup>[6]</sup> This typically shows how culture and religion rather than science, influence the outlook and decision of our people even in critical areas like health care.

Our study revealed that of those that will request for C/S, 57.1%, will do that to avoid labour. 21.4% will request it because of their bad obstetrics history, and 14.3% will do so because of previous history of infertility. Only 7.1% will request for C/S for the safety of their babies. This is similar to findings in Turkish women where fear of vaginal delivery, demand for tubal ligation and avoidance of labour pains were the commonly cited reasons for preferring C/S.<sup>[11]</sup> However, this is in contrast to a study in UK where 80% who request for C/S did so out of fear of perineal damage leading to stress incontinence and anal sphincter damage.<sup>[12]</sup> A recent study from south-eastern Nigeria revealed that only 1.4% viewed C/S as good and would electively go for it.<sup>[7]</sup> In a related paper, about 53.1% of obstetricians in Nigeria will accept caesarean delivery on maternal request in the absence of mitigating social reasons out of respect for maternal autonomy.<sup>[13]</sup>

There seems to be a convergence on the factors that tend to influence the choice of women from all the studies, as all studies showed that education and social class have no influence on the choice of the mode of delivery.<sup>[5,6,11]</sup> However, increasing maternal age has a positive correlation with acceptance of caesarean section in a previous study.<sup>[6]</sup>

In conclusion, the knowledge of caesarean section is encouraging. The low number of maternal request for caesarean will serve as a benchmark for the future especially with the increasing penchant for smaller family sizes among the urban educated elite.

## REFERENCES

1. Savage W and Francome C. British consultants' attitudes to caesareans. *J Obstet Gynecol* 2007;27:354-359
2. Fuglenes D, Qian P, Gyrd-Hansen D, Abel Olsen J and Kristiansen IS. Norwegian obstetricians' opinions about caesarean section on maternal request: should women pay themselves? *Acta Obstetrica et Gynecologica* 2010;89:1582-1588
3. National Population Commission (NPC) [Nigeria] and ICF Macro. 2009. Nigerian Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro
4. WHO Statistics information 2008
5. Orji E O, Ogunniyi S O, Onwudiegwu U. Beliefs and Perception of Pregnant Women at Ilesa about Caesarean section. *Trop J Obstet Gynaecol* 2003;20:141-143
6. Ezechi OC, Fasubaa OB, Kalu BEK, Nwokoro CA, Obiesie LO. Caesarean Delivery: Why the aversion. *Trop J Obstet Gynaecol* 2004; 21:164-167
7. Sunday-Adeoye I, Kalu CA. Pregnant Nigerian women's view of caesarean section. *Niger J Clin Pract* 2011;14:276-9
8. Shao M.F, Li X, Zhou H.Q, Zhang W.Y, Zhao X.P, Zhang H. Comparative study of reproductive tract infections of female sex workers and gynecology clinic patients and general population in Suzhou. *Int J Med Biomed Res* 2012;1:179-185
9. Ibrahim I.A, Oyeyemi A.S, Ekine A.A. Knowledge, attitude and practice of female genital mutilation among doctors and nurses in Yenagoa, Niger-Delta of Nigeria. *Int J Med Biomed Res* 2013;2:40-47
10. Envuladu E.A, Agbo H.A, Lassa S, Kigbu J.H, Zoakah A.I. Factors determining the choice of a place of delivery among pregnant women in Russia village of Jos North, Nigeria: achieving the MDGs 4 and 5. *Int J Med Biomed Res* 2013;2:23-27
11. Buyukbayrak E E, Kaymaz O, Kars B, Karsdag AYK, Bektas E, Unal O, Turan C. Caesarean delivery or vaginal birth: Preference of Turkish pregnant women and influencing factors. *J Obstet Gynecol*, 2010;30:155-158
12. Aslam MF, Gilmour K Fawdry RDS. Who wants a caesarean section? A study of women's personal experience of vaginal and caesarean delivery. *J Obstet Gynecol* 2003;23:364-366

13. Chigbu C O, Ezenyeaku CC, Ezenkwele EP. Obstetricians' attitudes to caesarean delivery on maternal request in Nigeria. *J Obstet Gynecol* 2010;30:813-817

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**Conflict of Interest:** None declared



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