



**PERCEPTION AND ACCEPTABILITY OF PREGNANT WOMEN TOWARDS
CAESAREAN SECTION IN NIGERIA**

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Article Received on 27/12/2017

Article Revised on 17/01/2018

Article Accepted on 07/02/2018

ABSTRACT

Background: Caesarean section remains the most common major operation performed on women worldwide and rate is increasing. Mortality and morbidity from pregnancy and labour related causes have been observed to be high in developing nations, especially those of sub-Sahara Africa. Significant aspect of these causes can be averted by timely Caesarean section. There is therefore the need to appraise the procedure frequently especially with a view to evaluating factors militating against the acceptance of this life saving procedure. The study was conducted to assess the knowledge, acceptance and perception of Caesarean section among pregnant women attending antenatal clinic in Usmanu Danfodiyo University Teaching Hospital (UDUTH) Sokoto. **Methods:** This was a cross-sectional study involving 200 pregnant women seen at the Usmanu Danfodiyo University Teaching hospital Sokoto between 1st October to 31st December 2015. Using an interviewer administered questionnaire, participants were scored for knowledge and perception; acceptance of Caesarean section was also assessed. **Results:** Majority (85.5%) had good knowledge of Caesarean section, and 77.5% viewed the procedure as an acceptable mode of delivery and will accept it if indicated. In the study, 193(96.5%) had good perception of C/S. Perception of denial of womanhood, pain, high cost and fear of death were the main reasons why some would not accept Caesarean section. **Conclusion:** This study showed a good knowledge, acceptance and perception of Caesarean section. This is against the wide assertion of aversion to C/s in developing countries.

KEYWORDS: Caeserean Section, knowledge, aversion, acceptance.

INTRODUCTION

Caesarean section (CS) is defined as the delivery of a foetus, placenta and membranes through an abdominal and uterine incision after the age of viability (which is 28 weeks of gestation in developing countries).^[1,3] Caesarean section remains the most common major operation performed on women worldwide and rate is increasing.^[4]

The indication for CS can be maternal, foetal or both. The rate of CS has been on the increase in the past two decades.^[5] Due to the safety of the procedure, several CS have been done for various justifiable medical and non-medical indications.

In Nigeria the national CS rate is 1.8%.^[6] The rates are relatively higher from tertiary health institution in different parts of the country. Lower rates were reported from northern Nigeria, with 10.1% in Kano,^[7] 10.6 in Sokoto, 11.8% in Maiduguri,^[8] and 20.3% from Birnin-Kebbi;^[9] while higher rates were reported from southern Nigeria as follows; 25% in Sagamu,^[10] 27.6% in Enugu,^[11] and 34.5% in Abraka.^[12]

Mortality and morbidity from pregnancy and labour related causes have been observed to be high in developing nations, especially those of sub-saharan African region. Prolonged obstructed labour, uterine rupture and obstetric fistulae are some of the serious problems that may be averted by timely caesarean section. The place of caesarean section in comprehensive emergency obstetric care and prevention of fetomaternal morbidity and mortality is obvious. There is therefore the need to appraise the procedure frequently especially with a view to evaluating factors militating against the acceptance of this life saving procedure. Hence, this study was conducted to assess the knowledge, acceptance and perception of Caesarean section among pregnant women attending antenatal clinic in UDUTH.

METHODOLOGY

Study area

Usmanu Danfodiyo University Teaching Hospital (UDUTH) Sokoto, Nigeria is a tertiary institution and a teaching hospital for Usmanu Danfodiyo University, Sokoto. Patients seen include those referred by private medical practitioners and other government health

institutions within the catchments area, including the neighbouring country, Niger Republic.

Study design

It was a cross-sectional study design.

Study population

The study population included women attending antenatal clinic at Usmanu Danfodiyo University Teaching Hospital, Sokoto during the study period.

Sampling method

Respondents were selected during each clinic day by simple random sampling using balloting. Verbal consent with a right to opt-out was obtained after assurance of confidentiality. A pool of 300 lottery paper were made earlier, 150 had 'YES' written on them and 150 had 'NO'. The women who chose 'YES' were recruited for the study and those who chose 'NO' were not selected.

Inclusion criteria

Women who attend antenatal clinic of Usmanu Danfodiyo university teaching hospital during the study period.

Exclusion criteria

These were women who did not give consent for the study.

Data collection

A structured interviewer administered questionnaire was used to obtain information about socio-demographic characteristics, reproductive profile, knowledge, perception and acceptability of Caesarean section.

The questionnaire had 7 questions about knowledge of Caesarean section. Each correct answer was scored 1,

and each wrong answer was scored 0. Marks obtained by each participant was divided by total score of 7 and multiplied by 100. A score of 50% and above was considered a good knowledge and a score of less than 50% was considered a poor knowledge.

There were 8 questions about perception with yes or no options, a correct answer was scored 1 and each wrong answer was scored 0. The marks obtained was divided by total of 8 and multiplied by 100. A score of 50% and above was considered a good perception and a score of less than 50% was considered a poor perception. The minimum sample size calculated was 150 using a sample size formula of a cross sectional study using a Proportion of women that had aversion to CS from previous study, which is 11.6%.^[13] The minimum sample size was further increased by 35% attrition value to 200.

Data analysis

The information obtained was analyzed using SPSS version 21. Tables and figures were used for data presentation. The information obtained was analysed using SPSS version 21. Chi- square test was used to determine association and a p-value <0.05 was considered significant.

RESULTS

Two hundred respondents were interviewed during the three months period of the study. The socio-demographic characteristics of the respondents were shown on table 1. The age ranged from 18-39 with a mean of 26.88 +/- 4.73 years. All were married. Parity ranged from 1-7 and 50 (25%) of the clients are nulliparous. Majority are Muslims 142 (71.0%) and housewives 115 (57.5%). Most of the clients had tertiary level of education 135 (67.5%).

Table 1: Socio-demographic characteristics of respondents (n=200).

Characteristics	Number	Percentage
Age		
<20	14	7.0
20-24	44	22.0
25-29	76	38.0
30-34	51	25.5
35-39	15	7.5
Tribe		
Fulani	29	14.5
Hausa	93	46.5
Igbo	41	20.5
Yoruba	14	7.0
Others	23	11.5
Religion		
Islam	142	71.0
Christianity	58	29.0
Occupation		
Housewife	115	57.5
Civil servant	48	24.0
Petty trader	29	14.5
Artisan	8	4.0

Educational status		
Informal	13	6.5
Primary	13	6.5
Secondary	39	19.5
Tertiary	135	67.5
Educational status of husband		
Informal	6	3.0
Primary	5	2.5
Secondary	31	15.5
Tertiary	158	79.0
Occupation of husband		
Artisan	15	7.5
Business	51	25.5
Civil servant	134	67.0

Majority of the respondents 104(52.0%) got information from friends and relatives. Fig1.

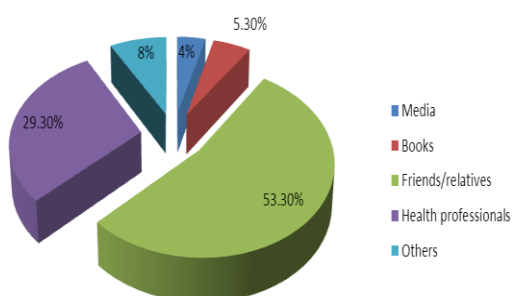


Figure 1: Source of information.

Among the participants, 171(85.5%) had good knowledge of Caesarean section, while 29(14.5%) had poor knowledge.

Knowledge was significantly associated with age ($p=0.005$), educational status ($p=0.009$) and husband education ($p=0.038$). The younger patients had better knowledge than the older patients. The participants and their husbands with higher level of educational are more likely to have better knowledge of caesarean section. This is shown in Table 2.

Table 2: Factors associated with knowledge.

Factors	Poor knowledge n (%)	Good knowledge n (%)	χ^2	P value
Age (years)				
<20	0 (0.0)	14 (100)	17.298	0.002
20-24	2 (4.5)	42 (95.5)		
25-29	16 (21.1)	60 (78.9)		
30-34	5 (9.8)	46 (90.2)		
35-39	6 (40.0)	9 (60.0)		
Religion			2.524	0.088
Christianity	12(20.7)	46(79.3)		
Islam	17(12.0)	125(88.0)		
Occupation			2.467	0.482
Artisan	0(0.0)	8(100)		
Civil servant	9(18.8)	39(81.2)		
Housewife	17(14.8)	98(85.2)		
Petty trader	3(10.3)	26(89.7)		
Marital status				
Married	29(14.5)	171(85.5)		
Educational status			12.057	0.009
Informal	0(0.0)	13(100)		
Primary	3(23.1)	10(76.9)		
Secondary	0(0.0)	39(100)		
Tertiary	26(19.3)	109(80.7)		
Educational status of husband				

Informal	0(0.0)	6(100)	7.725	0.038
Primary	3(60.0)	2(40.0)		
Secondary	6(19.4)	25(80.6)		
Tertiary	20(12.7)	138(87.3)		
Occupation of husband				
Artisan	3(20.0)	12(80.0)		
Business	6(11.8)	45(88.2)	0.693	0.729
Civil servant	20(14.9)	114(85.1)		

In the study, 193(96.5%) had good perception of CS and only 7(3.5%) had poor perception.

Age ($P = 0.006$), religion ($P = 0.0001$) and husband's occupation ($P = 0.002$) were significantly associated with

perception. Good perception was higher among younger women, Muslims and women whose husbands were civil servants. This is shown in Table 3.

Table 3: Factors associated with Perception.

Factors	Poor perception n(%)	Good perception n(%)	χ^2	P-value
Age(years)				
<20	3(21.4)	11(78.6)		
20-24	0(0.0)	44(100)	11.095	0.006
25-29	4(5.3)	72(94.7)		
30-34	0(0.0)	51(100)		
35-39	0(0.0)	15(100)		
Religion				
Christianity	7(12.1)	51(87.9)	17.760	<0.001
Islam	0(0.0)	142(100)		
Occupation				
Artisan	0(0.0)	8(100)		
Civil servant	0(0.0)	48(100)	3.793	0.238
Housewife	7(6.1)	108(93.9)		
Petty trader	0(0.0)	29(100)		
Educational status				
Informal	0(0.0)	13(100)		
Primary	0(0.0)	13(100)	2.127	0.433
Secondary	3(7.7)	36(92.3)		
Tertiary	4(3.0)	131(97.0)		
Educational status of husband				
Informal	0(0.0)	6(100)		
Primary	0(0.0)	5(100)	1.758	0.547
Secondary	2(6.5)	29(93.5)		
Tertiary	5(3.2)	153(96.8)		
Occupation of husband				
Artisan	2(13.3)	13(86.7)	15.155	0.002
Business	5(9.8)	46(90.2)		
Civil servant	0(0.0)	134(100)		

The majority, 155(77.5%) of the respondents will accept CS if indicated while 45(22.5%) would not accept CS. Among those that viewed CS as an unacceptable mode of delivery, the reasons given are as follows; denial of womanhood 21 (10.5%) painful procedure 16 (8.0%) it is expensive 15 (7.5) fear of death 11 (5.5%) fear to be mocked by other women 5 (2.5%) and CS done in the interest of the doctor 3 (1.5%).

Majority 159(79.5%) of the women would encourage a friend or relative to have caesarean section when indicated while 41(20.5%) would not encourage a friend to go for CS.

DISCUSSIONS

Caesarean section is one of the oldest procedures in obstetric practice and may be a necessary end in the termination of pregnancy to abort or minimize complications to the mother, foetus or both. In the developing countries, caesarean section utilization have been observed to be low.^[14] A significant contributor to this comparatively lower caesarean section rate is thought to be due to negative attitudes and perception of the procedure by pregnant women and their families.

With improvement in the number of pregnant women attending antenatal clinic in developing countries

including Nigeria,^[15] 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 171(85.5%) had good knowledge about Caesarean section. The high knowledge of the respondents may be a product of their educational status; most of them had tertiary level of education. Likewise, in a study from North-East Nigeria majority (80.3%) had knowledge about caesarean section.^[16] This is similar to a study from the South-West Nigeria where all the participants had knowledge of caesarean section.^[5] Furthermore, a similar study conducted in Niger Delta Tertiary facility, majority (86.0%) had knowledge on caesarean section and will support and accept it if offered.^[12] In another study in Irua, Delta state 83% were aware of the surgery.^[17] In a study by Oshimi et al; 93.8% were aware of Caesarean section while 40.9% had adequate knowledge.^[18] Some of the questions were technical for a patient who is not a health personnel explaining the lower level of knowledge. In a study conducted in India, knowledge was classified, with 8.7% having high knowledge, 26.2% adequate, 47.7% low and 17.4% had no knowledge.^[19] In a study by Faremi in Ondo state, 17.2% had good knowledge, 36.0% had fair knowledge and 46.8% had poor knowledge.^[20]

Since all the respondents were recruited from the antenatal clinic, it is expected that the main source of information, would be from the clinic. However majority 104 (52.0%) got information from friends/relatives (figure 1). This is similar to the finding from a study done in North-Eastern Nigeria where 49% of the respondents got information from friends and relatives.^[16] This may be a reflection of the poor health education in our antenatal clinics.

Our study shows significant association age, educational status of respondents and their husbands with knowledge of Caesarean section (Table 2). Knowledge of caesarean section was higher in the younger women. Participants with higher high level of education or those whose husbands had high level of education had better knowledge of CS. Oshimi et al demonstrated that there was no association between socio-demographic characteristics and knowledge of Caesarean section.^[18] However perception was better with older age group and husbands occupation (Table 3).

Majority (77.5%) of our study participants would accept Caesarean section if indicated and more women were ready to encourage friends or relatives to accept the procedure. Similarly in Irua, Edo state, 81.5% of the women would accept CS when indicated.^[17] This is in contrast with findings from a study carried out in two hospitals in Ile-Ife and Lagos where 81.2% of the respondents showed aversion to caesarean delivery.^[21] In the study from Birnin Kudu acceptance was 99%.^[18] In a study on women who had previous CS, 69.2% would accept repeat of the procedure if necessary.^[22] In Ibadan Bello et al found acceptance to be 65.5%. In an Indian

study, 91.5% would agree to caesarean section if it's necessary to protect their baby's health.^[19]

Most studies agree that the reasons for aversion for CS are not just because of associated maternal and foetal hazards but mostly due to traditional beliefs and practices. In our study, reasons for not accepting the surgery are mainly, perception of denial of womanhood, pain, high cost and fear of death. Similarly in the study carried out in Edo state, most of those who would refuse the surgery felt its denial of womanhood.^[17] Most of the women with aversion for CS in the study from Ile-Ife and Lagos view it as a reproductive failure.^[21] In a study among women with previous CS, those who would not accept repeat surgery had fear of death and pain.^[22] The reasons were mainly family preference for vaginal delivery, fear of death and cost of CS.^[23] Similar findings were made by Chigbu and Iloabachie in Enugu, South-East Nigeria.^[13]

Among the women who viewed CS as an unacceptable mode of delivery, most felt that their womanhood would have been lost. Majority of respondents have negative perception on Caesarean section in a study conducted in Irua, Edo state. In another study conducted in a missionary hospital in Edo state, majority of the respondents have negative perception on Caesarean section the reasons were mainly family preference for vaginal delivery, fear of death and cost of Caesarean section.^[23] Similar findings were made by Chigbu and Iloabachie in Enugu, South-East Nigeria.^[13] In the study conducted in Ile-Ife and Lagos where 81.2% of the respondents showed aversion to caesarean delivery, most of the respondents viewed it as a reproductive failure.^[21] would not accept were mainly due to fear of death and pain.^[22] This is in contrasts to a finding from a similar study at Ebonyi state university teaching hospital, where fear of death from the procedure was the commonest reason for aversion to caesarean section.^[5]

In conclusion, this study showed a good knowledge, acceptance and perception of Caesarean section. This is against the wide assertion of aversion to CS in developing countries. Age, participants' education and husbands' education were associated with knowledge while age, religion and husbands' occupation were associated with perception. Though the findings are encouraging, but attempts should be made to make it totally acceptable through health education during antenatal care and preoperative counselling.

CONFLICT OF INTEREST

We declare no conflict of interest.

REFERENCES

1. Incerpi MC. Operative Delivery. In: Decheney AH, Nathan L, Goodwin TM, Laufer N, (Eds.) *Current Diagnosis and Treatment, Obstetrics and Gynaecology*. 10th edition. New York: Mc Graw Hill Medical Publishing Division, 2007; 461-468.
2. Konar H, (Ed.) *D.C Dutta's Textbook of Obstetrics including Perinatology and Contraception*, 7th edition. London: New Central Book Agency Publishing Ltd, 2011; 588-598.
3. Nwobodo EI, Isah AY, Panti A. Elective caesarean section in a tertiary hospital in Sokoto, north western Nigeria. *Niger Med J.*, 2011; 52(4): 263-265.
4. Uzoigwe SA, Jemeriah I. Developments in caesarean section techniques: a review. *Nig J Med.*, 2006; 15(1): 24-29.
5. Caesarean section-A brief History. US National Library of Medicine National Institute of Health. <http://nlm.nih.gov/exhibition/caesarean/part1.html>. Viewed 28/07/2013.
6. Gibbons L, Belizan JM, Lauer JA, Betran AP. The global numbers and cost of additionally needed and unnecessary caesarean sections performed per year: overuse as a barrier to universal coverage. *World Health Report*, 2010.
7. Jido TA, Garba ID. Surgical-site infection following caesarean section in Kano, Nigeria. *Ann Med Health Sci Res.*, 2012; 2(1): 33-36.
8. Geidam AD, Audu BM, Kawuwa BM, Obed JY. Rising trend and indications of caesarean section at University of Maiduguri Teaching Hospital, Nigeria. *Ann Afr Med.*, 2009; 8(2): 127-132.
9. Nwobodo EI, Wara HL. High caesarean section rate at Federal Medical Centre Birnin-Kebbi: real or apparent. *Niger Med Pract.*, 2004; 46(2): 39-40.
10. Oladapo OT, Sotunsa JO, Sule-odu AO (2004) The rise in caesarean birth rate in sagamu, Nigeria: reflection of changes in obstetric practice. *J Obstet Gynaecol*, 24: 377-381.
11. Ugwu EOV, Obioha KCE, Ugwu AO. A five-year survey of caesarean delivery at Nigerian tertiary hospital. *Ann Med Health Sci Res.*, 2011; 1(1): 77-83.
12. Igberase GO, Ebeigbe PN, Andrew BO. High caesarean section rate a ten year experience In a tertiary hospital in Niger Delta, Nigeria. *Niger J Clin Pract.*, 2009; 12(3): 294-297.
13. Chigbu CO, Iloabachie GC. The burden of caesarean section refusal in a developing country setting, *Int J obstet Gynaecol*, 2007; 114(10): 1261-1265.
14. Dumon AT, Bernis L, Bouvier-Colle MH, Breart G, Caesarean section rate for maternal indication in sub-Saharan Africa: a systematic review *Lancet*, 2001; 358: 1328-1334.
15. Envuladu EA, Agbo HA, Lassa S, Kigbu JH, Zoakah AI. 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.
16. Bukar M, Ibrahim SM, Kawuwa MB, Dabu BA, Moruppa JY, Ehailaye B, et al, caesarean section on maternal request in Northeastern Nigeria: women's knowledge, perception and attitude in *Int J Med Biomed Res.*, 2014; 3(1): 11-16.
17. Eifediyi RA, Isabu P, Akhimiona V, Affusim CC, Ikheloa J, Njoku A. Caesarean section: Awareness, perception, and acceptability of Caesarean section among subrural Nigerian parturients. *International Journal of Gynaecological and Obstetrical Research*, 2015; 3: 7-12.
18. Oshimi AO, Amole TG, Aliyu LD. Knowledge and attitude of pregnant women to Caesarean section in a semi-urban community in North-West Nigeria. *J West Afr Coll Surg.*, 2013; 3(2): 46-61.
19. Ajeet S, Jaydeep N, Nandkishore K, Nisha R. Women's knowledge, perceptions and potential demand towards Caesarean section. *National Journal of Community Medicine*, 2011; 2(2): 244-8.
20. Faremi AD, Ibitoye AF, Olatubi MI, Koledoye PN, Ogbeye GB. Attitude of pregnant women in South-Western Nigeria towards Caesarean section as a method of birth. *Int J Reprod Contracept Obstet Gynecol*, 2014; 3(3): 709-14.
21. Ezechi OC, Fasuba OB, Kalu BE, Nwokolo CA, Obiesie LO. Caesarean delivery: Why the aversion? *Trop J Obstet Gynaecol*, 2004; 21(2): 164-167.
22. Olofinbiyi BA, Olofinbiyi RO, Aduloju OP, Atiba BP, Olaogun OD, Ogundare OR. Maternal view and experiences regarding repeat Caesarean section. *Niger J Clin Pract.*, 2015; 18: 489-92.
23. Amiegheme FE, Adeyemo FO, Onasoga OA. Perception of pregnant women towards Caesarean section in Nigeria: a case study of a missionary hospital in Edo state, Nigeria. *Int J Community Med Public Health*, 2016; 3(8): 2040-2044.