

Knowledge and attitude of antenatal attendees towards caesarean section in a University Teaching Hospital in Southern Nigeria.

Ntiense Macaulay Utuk, (Fwacs)¹ ; Anyiekere Morgan Ekanem, (Fwacs)² ;
Aniekan Monday Abasiattai, (Fwacs)³ .

¹Senior lecturer, department of Obstetrics and Gynaecology, University of Uyo Teaching Hospital, Uyo, Nigeria.

²Senior lecturer, department of Community Health University of Uyo Teaching Hospital, Uyo, Nigeria.

³Professor, Department of Obstetrics and Gynaecology, University of Uyo Teaching HOSPITAL, Uyo, Nigeria.

Corresponding author: Ntiense Macaulay Utuk

Abstract: A skilled attendant at birth as well as comprehensive emergency obstetric care with caesarean section available to parturients in need has been advocated to reduce the appalling maternal mortality and morbidity prevalent in sub-saharan African. Even though caesarean section rates continue to rise around the world, its utilization in Africa remains low due to a strong aversion to this surgery. This study assesses the knowledge and attitude of pregnant women towards caesarean section in the University of Uyo Teaching Hospital, Nigeria. A structured questionnaire was administered to 297 consenting pregnant women. Data was analysed using Strata version 12. All the patients had knowledge of caesarean section. Two hundred and ten women (70.70%) would accept it as an option of delivery. Eighty seven (29.30%) patients would not accept the procedure under any circumstance. The place of residence ($P < 0.024$); mother's level of education ($P < 0.00$) and place of last delivery ($P < 0.00$) were significantly associated with acceptance of caesarean section. Even though there was a high level of knowledge of caesarean section, despite the high educational level of the respondents a significant number still refused caesarean section as an option of delivery. There is a need for continuous education of antenatal patients on the role of caesarean section as an alternative to unsafe vaginal delivery in our environment. Doctors should play an active role in this education.

Keywords: caesarean section, knowledge, attitude, University of Uyo Teaching Hospital.

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I. Introduction

Caesarean section is an operative procedure whereby fetuses are delivered after the 28th week of gestation through an incision in the abdominal and uterine walls¹.

It is a surgical alternative to unsafe vaginal delivery and can be life saving for mother or baby or both.² The provision of emergency obstetric care (EOC), one of whose key components is caesarean section, as well as a skilled attendant at birth, is known to contribute to a great reduction in maternal mortality and morbidity and is recommended for all pregnant women by the World Health Organization.³ Indeed, researchers have found that at least 2% of all deliveries will require caesarean section to save the mother's life for indications like major type placenta praevia, obstructed labor and that at least 5% will be required to save both the mother and babies lives.³ Worldwide, the incidence of caesarean section is steadily increasing.⁴ This increase is due to greater safety and knowledge of the procedure, as well as the availability of safe blood transfusion services and anaesthesia, in addition to antibiotics².

In Nigeria, apart from hospital-based studies in urban areas, the general incidence of caesarean section remains low at 2%.⁵ This is against the World Health Organization's recommendation of a rate between 10 and 15%.³ There is therefore an underutilisation of this vital procedure when compared to the large burden of obstetric morbidity requiring resolution by caesarean section⁶. Indeed, caesarean section aversion has been found to be a major reason for default from orthodox antenatal care.^{7,8} This is because the majority of Nigerians consider vaginal delivery as the only normal form of delivery and view caesarean section as abnormal.⁹

The reason for this antipathy to caesarean section is known to be multifactorial –ignorance, cultural and financial.¹⁰ This antipathy is a known cause of delivery in unorthodox facilities, further worsening health care indices.¹¹ Underpinning this aversion to caesarean section are religious and gender ideologies as well as the role of alternative providers who influence the acceptability of caesarean section.¹⁰ Thus caesarean section is still regarded as the curse of an unfaithful woman and a procedure done for feeble women who labor.^{12,13}

This study, the first in our centre, aims to determine the knowledge and attitude of pregnant women to caesarean section in the University of Uyo Teaching Hospital in Uyo, Akwa-Ibom State of Nigeria. It will

provide a baseline of information for future reference and hopefully help bring about strategies to reduce the aversion and increase the acceptance of caesarean section.

II. Methods And Materials

This was a cross sectional study carried out at the university of Uyo Teaching Hospital, a tertiary Hospital which serves Uyo and it's environs , Akwa Ibom State between August 1st 2017 and November 30th 2017. Two hundred and ninety seven respondents were selected using the simple random sampling technique during the booking clinic . The sample size was determined using the formula :

$N = Z^2 p q / d^2$. Z represented the normal standard deviation set at 1.96 which corresponds to 95% confidence interval ; d was the level of accuracy desired which was set at 5% in this study and p was set at 82%. A minimum sample size of 227 was needed and was adjusted to incorporate a possible data loss of 10%. Final sample size was 250

$1.96 \times 1.96 \times 0.18$

$\times 0.82 / 0.05 \times 0.05$

This equalled 227 . 10% . Non response is 23

Total was 250

Two hundred and ninety seven consenting pregnant patients were administered structured questionnaires by trained house officers after an informed consent was obtained from the patients . Those who chose not to participate were excluded and were reassured that it would not affect their management. The first part of the questionnaire sought information on the socio- demographic details of the patients. The second part explored the obstetric details of the patients, place of prior delivery if any and the method of delivery. The third section explored the knowledge and attitude of the respondents to Caesarean section.

These data were then analysed using strata version ¹² statistical software. The data was presented in frequency tables and percentages and Fischers exact test and chi square were used to test for significance between selected variables and aversion to caesarean section. Significance was set at $P < 0.05$ with a 95% confidence level .

Ethical approval was granted for the study by the University of Uyo Teaching Hospital ethical committee.

III. Results

Two hundred and ninety seven questionnaires were analysed. The result showed an age range of 18-45 years with a mean of 30.1 years (S..D 4.86years). The majority of respondents (238;80.10%) were less than 35years and lived in urban areas (230;70.44%) . Most were married (96.30%) and 75.42% of the women had a tertiary level of education as well as 79.10% of their husbands. TABLE 1

Table 1 : Socio-demographic Characteristics of Respondents

Characteristics	Frequency	Percent
Age group		
Less than 35 years	238	80.10
35 years and above	59	19.90
Residence		
Rural	67	22.56
Urban	230	70.44
Marital Status		
Single	6	2.02
Married	286	96.30
Divorced/Separated	1	0.34
Widowed	4	1.35
Level of education		
No formal education	1	0.34
Primary education	7	2.36
Secondary education	57	21.89
Tertiary education	224	75.42
Ethnic Group		
Ibibio	196	65.99
Annang	9	3.03
Oron	8	2.69
Hausa	30	10.10
Yoruba	33	11.11
Igbo	23	7.07
Husband/Partners level of education		
No formal education	2	0.68
Primary education	2	0.68
Secondary education	58	19.5
Tertiary education	235	79.1

Table 2 shows the obstetric characteristics of the respondents. The majority were para 1-4. Only 9.76% were nulliparous. Two hundred and forty nine respondents (85.50%) had a prior delivery in a health facility.

Table 2: Obstetric Characteristics of Respondents

Characteristics	Frequency	Percent
No. of previous deliveries (n=297)		
0	29	9.76
1-4	262	88.22
≥5	6	2.02
Place of Delivery of Previous Pregnancy (n=268)		
Health Facility	229	85.5
Church	20	7.5
TBA	16	6.0
Home	3	1.1
Mode of delivery of last baby (n=268)		
Vaginal	243	90.7
Cesarean section	25	9.3

*those who had delivered at least once.

The largest proportion of women (88.22%) were multiparous(1-4). The majority (85.5%) were delivered of their last baby in a conventional health facility. Most (90.7%) of the deliveries were vaginal.

Table 3 shows the respondents knowledge of caesarean section. All the patients knew what caesarean section is. A majority of the women(94.95%)agreed that caesarean section is done to save the life of a woman or the baby. Most of the women(228;76.77%) obtained information about caesarean section from the health talks given by midwives at the antenatal clinic.

Table 3: Respondents Knowledge of Ceasarean Section

Characteristics	Frequency	Percent
What is Caesarean Section (n=297)		
An operation to deliver baby	257	86.5
Don't Know/No idea	40	13.5
Are there instances where Caesarean section is needed? (n=257)		
Yes	213	82.9
No	44	17.1
Sources of Information on Caesarean Section (n=257)		
Health Talk during ANC	297	76.7
Pastors	7	2.7
Husband	21	8.2
Friends	18	7.0
Relation	6	2.3
Internet	6	2.3
Others	1	0.8
Do You Support Caeserean Section (n=257)		
Yes	198	77.0
No	59	23.0
Why do doctors do caesarean section		
To save baby	223	86.8
To save life of mother	20	7.8
To make money	14	5.5
Will you Accept Caesarean section as an option		
Yes	210	70.7
No	87	29.3
Reasons for not accepting Caeserean Section (n=87)		
Fear of dying	34	38.6
Not Gods will	30	34.1
Expensive	11	12.5
Denial of womanhood	9	10.2
Limits number of children	3	3.4

Eighty seven patients (29.36%) will not accept caesarean section under any circumstance and the major reasons for non acceptance were fear of dying (34, 38.6%),and the procedure not being God's will (30,

34.1%). Eleven patients (12.5%) felt the procedure was expensive and nine (10.2%) claimed that Caesarean section was a denial of womanhood.

Table 4 explored the association between selected factors and acceptance of Caesarean section. The place of residence (urban rather than rural (PC=0.024); mother's level of education (P=0.000);and place of last delivery (P=0.000) were significantly associated with acceptance of C/S.

Factors	Acceptance of Cesarean section		Total	Statistical tests and values
	Yes	No		
Age group				X ² = 0.168
Less than 35	167 (70.2)	71 (29.83)	238	P= 0.682
35 years and above	43 (72.9)	16 (27.12)	59	
Place of residence				X ² = 5.059
Rural	40 (59.7)	27 (40.3)	67	P= 0.024
Urban	170 (73.9)	60 (26.1)	230	
Marital Status				X ² = 5.419
Single	2 (33.3)	(66.7)	6	P= 0.144
Married	205 (71.7)	81 (28.3)	286	
Divorced/separated	1 (100.0)	0(0.0)	1	
Widowed	2 (50.0)	1 (50.0)	4	
Level of Education				X ² = 41.807
No formal education	0 (0.0)	1 (100.0)	1	P= 0.000
Primary	3 (42.7)	4 (57.1)	7	
Secondary	27 (41.5)	38 (58.5)	65	
Post Secondary	180 (80.4)	44 (19.6)	224	
Place of last delivery				X ² = 51.06
Health facility	177 (77.3)	52 (22.7)	229	P= 0.000
Church	5 (25.0)	15 (75.0)	20	
TBA	3 (18.8)	13 (81.25)	16	
HomE	0 (0.0)	3 (100.0)	3	

IV. Discussion

The age range of our respondents- 18-45 years- with a majority less than 35years reflected the reproduction age range of our women. This information concurs with that of other studies ^{14,15}.

There was a high level of knowledge of caesarean section in this study. This may be due to the fact that most of the respondents and their husbands had tertiary level of education. These well educated patients are more likely to obtain antenatal care in hospitals and therefore are more knowledgeable about caesarean section . In a study by Eifediyi et al in the Niger Delta region of Nigeria ¹⁶, 83% of patients had good knowledge of caesarean section while another study by Bulcar M. et al from North – Eastern Nigeria ¹⁷revealed that 80.3% of women had knowledge of the operation. However, in a similar study done by Mboho in the rural areas of our environment,were access to orthodox care is difficult and adequate knowledge of caesarean section is poor, knowledge and acceptance of caesarean section were poor¹⁸. In this study caesarean section was viewed as a reproductive failure and women stayed away from the hospital because of fear of the procedure. They believed that doctors rushed to perform caesarean section without giving a woman adequate opportunity at vaginal delivery.¹⁸

Most of the clients received information about caesarean section from the health talks in the antenatal clinic . It has been shown that the perception of women to caesarean section is driven by the information that they receive from various sources which vary in their level of accuracy and reliability ⁶. However there was still a significant percentage of women in this study who receive information from their husbands and friends, sources which may not be reliable . Women must be educated about the unreliable nature of information from these sources. A study has suggested the incorporation of doctors in the education of clients in the antenatal clinic to give it more substance .¹⁹

A majority of women in this study will consent to caesarean section. This is at variance with what obtained in other studies which show low percentages for acceptance of caesarean section ^{18,20}. This may be due to the fact that our study was carried out among patients in an urban setting and also the high level of education of respondents. Urban residence has been established as a positive factor in the acceptance of caesarean section in other studies.^{21,22} This has been attributed to easier access to a functional health care facility. The relationship between a high level of education and acceptance of caesarean section has also been shown by other studies ^{6,12}.

Surprisingly about a quarter of women in this study, despite being well educated and resident in urban areas, still refused caesarean section as an option of delivery. This is in contrast to the notion of caesarean section as an index of inequity - accessible to the well - educated and rich, and not to the poorly educated and poor ²³. Other factors apart from wealth and education may be responsible:ingrained sociocultural and gender factors, as well as the role of spiritualism.^{8,24}

Thus the reasons for not accepting the operation by the respondents include fear of dying, not God's will, high cost of the operation, denial of womanhood and limitation of number of children. This agrees with other studies^{8,11}. Patients must therefore be informed that caesarean section is the commonest operation done in obstetrics and that the safety of this procedure has greatly improved due to better techniques, antibiotics and safe blood transfusion. Also patients must be educated about the positive role of caesarean section as a safe alternative in the management of unsafe vaginal delivery.

A majority of the patients had a prior delivery in a health facility and most were normal vaginal deliveries. These women were significantly more likely to accept C/S. This is supported by other studies which show that the place of last delivery is an important factor in the acceptance of C/S²¹. Use of a facility delivery in a previous pregnancy is found to be highly predictive of health facility use in the index pregnancy²¹. This may be because of exposure to antenatal clinic talks about caesarean section.

V. Conclusion.

It has been shown in this study that the knowledge of caesarean section among our antenatal patients is high and that most of them would accept caesarean section as a method of delivery. However, a significant number of them would decline the procedure despite the urban residence of respondents and their high level of education. This emphasizes the need for rigorous continuous education about caesarean section even in the antenatal clinic. Doctors may also give antenatal clinic talks to bolster credibility and dissuade patients from getting their information from friends and relatives. Through community enlightenment, women should be encouraged to attend antenatal clinic in orthodox facilities where more reliable information can be obtained about pregnancy and caesarean section. Through a comprehensive national health insurance scheme, the cost of caesarean section should be reduced.

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