Caesarean Section: Awareness, Perception and Acceptability of Caesarean Section Amongst Subrural Nigerian Parturients

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Abstract: *Introduction*: Caesarean section is one of the commonest operations performed globally today and has contributed immensely to improvement in maternal care. Awareness, perception and acceptability of this procedure are still a concern in developing countries hence this study.

Methods: This was a cross-sectional study aimed at the evaluation of the awareness, perception and acceptability of Caesarean section amongst antenatal attendees at Irrua Specialist Teaching Hospital, Irrua, Edo State, Nigeria.

Results: 332 (83%) were aware of the surgery and this was influenced by the respondents' parity, marital status, occupation, level of education and previous Caesarean section. 275(75.9%) of those with formal education could correctly define Caesarean section. Sixty-four percent were in support of the procedure whereas 144(36%) were averse to it. Majority of the attendees 326 (81.5%) would readily accept Caesarean section when it becomes necessary to save their lives and unborn child, while 74(18.5%) would default.

Conclusion: There is still the need to broaden the reach on knowledge of caesarean delivery amongst the few who are ignorant of the consequences of not accepting or not being aware of the procedure when the need arise.

Keywords: Caesarean section, perception, acceptability.

1. INTRODUCTION

Caesarean section is the birth of a foetus through surgical incisions in the anterior abdominal wall and the uterine wall after the age of viability [1, 2]. This definition does not include removal of the foetus from the abdominal cavity or the case of rupture of the uterus or in the case of an abdominal pregnancy [3].

It is one of the oldest operations in Obstetric practice performed upon women dying in the last few weeks of pregnancy in the hope of saving the child as decreed then by Roman law. Nevertheless, the surgery in ancient times was performed on dead women until in the sixteenth century when Jacob Nufer a Swiss pig farmer saved the life of his wife who had obstructed labour by the procedure [3, 4].

It is one of the most commonly performed operations in the world today and its incidence has continued to rise beyond the World Health Organization recommended ceiling of 10-15% [5]. A WHO global survey on maternal and perinatal health between 2004 and 2008 showed that 25.7% of all deliveries were by Caesarean sections, ranging from 2.3% in an Angolan facility and 46.2% in China facility [6]. The incidence in most Nigerian Teaching hospitals range between 23.1-32% [7-9].

This increase in Caesarean section rate has been attributed to many factors in the developed countries like the fear of malpractice litigation on doctors, more liberal use of Caesarean section for breech presentation, the detection of foetal distress by continuous electronic foetal monitoring, abdominal delivery of growth-retarded infant, reduction in operative vaginal deliveries, rise in labour induction rates especially among nulliparas, the increased prevalence of obesity, the increased Caesarean delivery for women with preeclampsia, decreasing rate of vaginal birth after Caesarean(VBAC), concern for pelvic floor injury associated with vaginal birth, medically indicated preterm birth-to reduce the risk of foetal injury, patient request and improved safety of Caesarean section [3].

On the contrary, the reasons are less clear in developing countries. In Nigeria, for example, in spite of the high incidence of Caesarean section and increasing rate noted in many studies, there is paucity of literature with regard to the reason for such findings [7, 10]. Some of the reasons being adduced include, the specialist and referral nature of some of the hospitals, unbooked status of most of the patients, increasing use of foetal heart rate abnormalities alone as a measure of diagnosis of foetal distress in labour, over-diagnosis of cephalo-pelvic disproportion by junior doctors, and use of repeat Caesarean section for patients with a previous Caesarean section [11-13].

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E-ISSN: 2309-4400/15

It is not possible to catalogue comprehensively all appropriate indications for Caesarean delivery [3, 14] However, in most Nigerian teaching hospitals, the leading maternal indications were cephalopelvic disproportion, two or more previous Caesarean section, eclampsia, failed induction of labour, placenta praevia, severe pregnancy-induced hypertension, and obstructed labour. Major foetal indications include foetal distress, breech presentation, foetal macrosomia, and pregnancy complicated by multiple foetuses [8, 15]. The complications of Caesarean section include haemorrhage, wound infection, injury to bowel, bladder, ureters or the foetus. Rarely there could be thromboembolism and anaesthesia-related complications. Maternal mortality is extremely low and is estimated to be less than 0.33 per 1000. It is usually related to the reason for which a CS is done or due to anaesthetic or haemorrhagic complications [16].

The perinatal mortality in our environment compared to centres abroad is still higher. Majority of these deaths were among the unbooked, multiparous patients and following emergency caesarean delivery [17-19]. About 12.5% and 16.3% had been reported from Ibadan and Kaduna Nigeria [17-19]. In recent years, lower rates have been documented from, Enugu, Maiduguri and the South west Nigeria: 3.9%, 7.6% and 6.9% respectively [8,15,20].

Its increasing acceptance and rising number of caesarean deliveries on maternal request in the developed countries equally suggest that healthcare workers and their clients perceive the operation to be free from serious risk [6].

While caesarean section is widely embraced and utilized in the developed world, aversion, misconception, fear, guilt and anger surround the operation in Nigeria [16]. The reasons for these include morbidity and mortality from the operation, perceived high cost of hospital bills and prolonged hospital stay [17]. The latter is a factor because these women do not want relations and friends alike to know that they delivered through Caesarean section; any factor that will prolong their stay in the hospital is particularly disliked and frowned at. These women have come to associate Caesarean section and wound infection with long hospital stay [21, 22]. Moreover, it is also perceived as a curse on an unfaithful woman and the lot of weak women regarded as reproductive failures [22, 23].

Also attributable for Caesarean refusal are inadequate counselling and religious beliefs. Claims of not being informed of the caesarean section earlier in the course of antenatal care, the 'uncaring or casual' attitude of the doctor when giving the information and non-involvement of the respondents in the decision making process leading to the feeling of violation of the rights of the patients. A patient's tenacity to prophecy that she would have a normal delivery because previous prophecies from the same church had been correct also increases refusal of the operation [24].

In Nigeria, as in most sub-Saharan Africa countries, it has been suggested that women accept Caesarean section reluctantly even in the face of obvious clinical indications [25]. There is also a high rate of default by pregnant women with previous Caesarean section scars who are at high risk of subsequent uterine rupture [26]. Some women with previous Caesarean section only report to the hospital when complications arise after a trial of labour at home [27, 28].

In a study, women who had previous Caesarean section were averse to the operation because their female counterparts often make them objects of discussions, social ridicule and at any slightest opportunity are reminded that they are lazy and a social misfit [22]. The study also revealed no correlation between education and acceptance of Caesarean section which supports the view that Caesarean aversion is deeply rooted in culture and tradition of the people. Therefore any meaningful attempt at solving this problem must go beyond the confines of the maternity wards, since the social milieu has been shown to be fundamentally important in solving issues of maternal mortality in the developing countries [22]. Importantly, the negative view and perception of Caesarean section by women in developing countries has led to gross underutilization of the surgery compared to the large burden of obstetric morbidity requiring resolution by the procedure [29].

In view of the immense contributions of caesarean section in the improvement of modern obstetric practice, this study aim to evaluate the awareness, perception and acceptability of the surgery among antenatal attendees in Arrau Specialist Teaching Hospital: a semi-urban environment in Edo state.

1.1. Aims and Objectives

To determine the awareness, perceptions and acceptability of Caesarean section among antenatal attendees in Arrau Specialist Teaching Hospital.

2. MATERIALS AND METHODS

This was a cross-sectional study carried out among antenatal attendees of Irrua Specialist Teaching Hospital, Arrau, Edo state. The required sample size was determined using the formula $n = z^2pq/d^2$ (for population >10,000) [30,31]. z = the standard normal deviate at 95% confidence level (usually set at 1.96). p= the proportion in the target population estimated to have a particular characteristic [31]: p is not the same as the p-value.

The reasonable estimate of 50% was used (that is 0.50). q = 1.0 - p. d = the degree of accuracy desired (5%), usually set at at 0.05 or occasionally at 0.02.

This gave a sample size of 384. B When the z statistic is approximated to the nearest whole number for take care of non-responders and conviences [31], it is 2.0 then the sample size was 400.

A structured questionnaire was distributed to the 400 women between May and July 2014 after consent. The participants were selected randomly and information about the study was disclosed to them. The antenatal clinic setting was chosen because of the opportunity it provided for educating the women on caesarean section.

Data concerning their socio-demographic characteristics, opinions about caesarean section, reasons for being in support of or against caesarean section, and their possible responses if caesarean section became necessary for their care during pregnancy or labour were obtained.

Data were fed into the computer and analysed using SPSS 16.0 statistical software and presented as percentages, means and standard deviations. Chi square tests were carried out where necessary. Cross tabulations and correlation analysis were performed to establish relationships among variables. Statistical significance was assumed at p values of ≤ 0.05.

3. RESULTS

The social demographic characteristics of respondents and the relationship to the awareness of Caesarean section: The age range and mean age of respondents were 20-41 years and 30.3±4.09 years respectively. There were fifty-three (13.2%) nulliparous, 334(83.5%) were multiparous and 13(3.2%) grand multiparous women. The majority of respondents, 357(92.7%) were married/living with their partners. There were 19(4.8%) Professionals, 116(29.0%) Civil servants, 159(39.8%) Traders; with the Farmers and unemployed being 53(13.2%) each. Thirty-eight (9.5%) women had no formal education, 56(14.0%) had primary, 219(54.8%) secondary and 87(21.8%) tertiary education. Christianity 364(91.0%) was the major religion of respondents while African tradition 3(0.8%) was the least. 24.2% of respondents have undergone a Caesarean section previously.

There was statistical relation amongst Parity, marital status, occupation, level of education and previous Caesarean section and the awareness of Caesarean delivery (p value<0.05). On the contrary, age and religion did not affect respondent's awareness.

Figure **1** shows that 256(64.0%) of antenatal attendees supported the Caesarean section while 144 (36.0%) were averse to it.

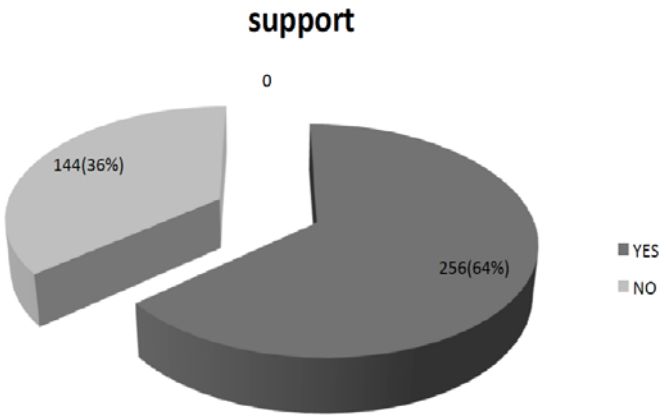

Figure 1: Support for Caesarean section.

In Figure **2**; 23(41.1%) with primary education had knowledge of what caesarean section was about compared to 12(31.6%) women without formal education. Eighty-one (93.1%) with tertiary education correctly define Caesarean section when compared to 171(78.1%) with secondary level of education. The difference was statistically significant (χ^2=80.159df: 3p<0.000).

Table **1** evaluates the perceptions and acceptability of the respondents to caesarean section. Of the 256 antenatal women in support of the surgery, 228(89.1%) were of the opinion that it was a safer mode of delivery when vaginal birth cannot be achieved. Three (1.2%) women believed it was to please the health care staff while 25(9.7%) were in support to avoid labour pains.

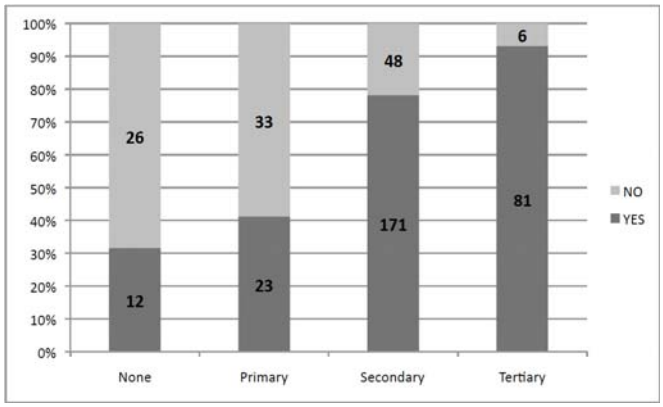

Figure 2: Relationship between knowledge of Caesarean section and level of educational attainment. χ^2=80.159df: 3p<0.000.

Table 1: Perceptions and Acceptability of Caesarean Section

Characteristics	Number of patients n (%)
PERCEPTIONS	
Reasons for support of Caesarean section	
A safe mode of delivery when vaginal delivery cannot be achieved	228(57.0)
To please the Hospital staff	3(0.8)
To avoid labour pains	25(6.2)
***Reasons for opposing Caesarean section**	
It is a denial of womanhood	127(31.8)
The possibility of being mocked by other women	110(27.5)
Punishment for marital infidelity	71(17.8)
Forbidden by our culture	54(13.5)
Fear of death	118(29.5)
Pains during and after surgery	37(9.2)
ACCEPTABILITY	
If Caesarean section becomes necessary	
Would accept that surgery be done	326(81.5)
Would rather go to church or mosque	9(2.2)
Would go to Traditional birth attendant	17(4.2)
Seek consent from spouse or key relations to decline surgery	42(10.5)
Don't know	6(1.5)

***More than one reason were given in this category

One hundred and forty-four (36.0%) women had reasons to oppose Caesarean delivery. One hundred and twenty seven (31.8%) believed it was a denial of womanhood, 110(27.5%) believed they would be mocked, 71(17.8%) believed it was an ominous sign of punishment for marital infidelity, 54(13.5%) believed it was forbidden by their culture, 118(29.5%) were afraid it could lead to their death and 37(9.2%) would not like the pain during and after surgery.

Three hundred and twenty (81.5%) respondents would accept the procedure on the premise that it is absolutely necessary after counselling by their doctor, 9(2.2%) would rather go to a Church or Mosque, 17(4.2%) would go to the Traditional birth attendant, 42(10.5%) would seek consent from their spouse or key relation and 6(1.5%) had no response.

4. DISCUSSION

This study portrays a high rate of Caesarean section awareness (83.0%) among antenatal attendees in a semi-urban environment like Irrua. The rate was lower than 96% in similar studies in Benin City, Nigeria, an urban setting and Kumasi, Ghana [32, 33]. Another explanation could be due to the patient comparatively lower level of education and birth preparedness.

Interestingly, over half (64.0%) of the pregnant women attending antenatal clinic in our facility supported caesarean section. This finding was similar to those in Ile-Ife and Port Harcourt [23, 34]: which might be alluding to the increasing awareness and safety of the surgery [32].

Majority of women (90.5%) had formal education in this study: more so were the respondents able to define Caesarean section with increasing level of education being 41.1%, 78.1% and 93.1% for primary, secondary and tertiary education respectively. Thus, the level of education had a profound role in the correct definition of Caesarean section by the respondents in this survey as with similar others [23, 34].

Most pregnant women attending antenatal clinic supported Caesarean section because they considered it to be a safe mode of delivery when vaginal delivery was not possible. This is similar to the findings in Ile-Ife and Port Harcourt [23,34].

A few women (9.7%) were in support of caesarean delivery to avoid labour pains. This was the common reason reported for maternal demand for Caesarean section in a study amongst Nigerian women in Ibadan [35].

One third of women in this study (36.0%) could provide more than one reason for their opposition to Caesarean section. The majority perceived it as a

reproductive failure in which there was the likelihood of being mocked by other women or the patient denied the true essence of womanhood of vaginal delivery. Also, significant number of the women, who refused the surgery, did so for fear of death. This is consistent with observations in a developing country like Nigeria [24]. The belief that Caesarean delivery is a punishment for marital infidelity is deeply rooted in our culture. The harrowing experience of what happened to these women before civilization still pervades their minds [36].

The high acceptability rate (81.5%) of Caesarean section in this study agrees with similar surveys [32,33,37]. This was on the premise that the operation was necessary to save her life or unborn child. In such dire circumstance a few respondents believe they could still deliver vaginally: thus seek refuge in religious homes, Traditional birth attendant, and wait for their spouse to decide or do nothing.

5. CONCLUSION

The high rate of awareness of Caesarean section in this study is linked to the level of education of the respondents. In spite of this, there is still a negative perception to the procedure due to fear of complications, Cultural and religious beliefs. Most women will accept the surgery only when it becomes necessary. Therefore, there is the need for public enlightenment and programmes in the community to reduce the number of women declining Caesarean section.

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Received on 15-11-2014 Accepted on 09-12-2014 Published on 15-02-2015

DOI: http://dx.doi.org/10.14205/2309-4400.2015.03.01.2