

## Is Aversion to Caesarean Section Justified in Africa?

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### Abstract

*Caesarean section (CS) is still relatively not well accepted in Africa when compared to Western countries. Morbidity following CS especially inability to do things by oneself is a major deterrent to accepting CS. This study reviewed morbidity following CS & retrieve feedback on CS from clients.*

*A retrospective three year review of all CS done in an obstetric specialist unit was conducted. A cross sectional study was carried out using self-administered questionnaire to retrieve feedbacks from clients who have had CS done on them.*

*Caesarean section rate was 68.59%. Mean time to ambulation, taking of oral sips, commencement of breastfeeding was 24 hours while mean time to discharge was 71.7hours. 70% of the women had no regrets doing CS. About 50% would want some improvement in the process of CS especially the spinal anaesthesia. Morbidity following CS occurred in less than 20%.*

**Keywords:** *aversion, caesarean section, postoperative, morbidity*

### Introduction

Caesarean operation as it was initially called was a crude surgery that always resulted in the death of the mother & or the baby. For many reasons the mothers died or were dead or dying before the gruesome surgery was performed. The reasons why mortality for mothers was always 100% were overwhelming sepsis, loss of profound blood, lack of appropriate anaesthesia (History of caesarean section. Webposts). Since the record of of the first successful caesarean section in 1500 in Switzerland by Jacob Nuer on his wife , millions of caesarean sections are done yearly worldwide. The once dangerous operation has become largely very safe for both mother & fetus & its among the most commonly performed surgery worldwide (Murphy 1999).

Caesarean section (CS) has become acceptable in developed world as an alternative method of maternal delivery and in fact many countries in developed countries are said to do excess or unnecessary caesarean sections over and above the 15% upper limit suggested by world health organisation (Gibbons et al.,2010). It is actually being suggested that caesarean section be available on demand in some countries outside of medical indications (huffingtonpost 2011).

The story of acceptance is however not the same in many parts of developing countries especially sub-saharan Africa where strong aversion exists for CS & it is associated with miseries, misconception, fear, guilt and anger ( Awoyinka, Ayinde & Omigbodun 2006; Ezechi, Edet , Akinlade, Gab-okafor &Herbertson 2009). Level of acceptance of CS in Nigeria varies from 6.4% (Faremi 2014) to 81.2% (Sunday-Adeoye 2011) but acceptance of CS most times is conditional i.e acceptable only when life of mother or fetus is considered to be under great threat, while 12.3% will accept CS reluctantly (Faremi, Ibitoye, Olatubi, Koladoye & Ogbeye 2014; Adeoye & Kalu 2011). Major reasons why CS is so painted in these dark colours are morbidity

and mortality from the operation, prolonged hospital stay, perceived high cost of hospital bills and of sense of reproductive failure after caesarean section (Ezechi et al., 2009).

This study aims to review morbidity & mortality associated with caesarean section in a dedicated women's hospital with the view of determining if the negative attitude to caesarean based on morbidity & hospital stay is still justified in this 21<sup>st</sup> century.

## **Methodology**

**SETTING:** Ayomide women's health specialist hospital is sited in Olorunda local government of Osun State in Osogbo town the capital city of Osun State, Nigeria. It was established in 2010 with the aim of offering obstetrics & gynaecological care to women. The facility moved from its former 4 bedded unit to the present permanent site in February 2012. The facility still under construction is a six bedded unit, with a private ward & a labour ward & operative theatre. The labour ward has hand held ultrasonic fetal heart detector, oxygen concentrator, vacuum delivery system, suction machine, radiant heater for baby resuscitation & paediatric ambu bag. The theatre is equipped with an anaesthetic machine, diathermy, oxygen cylinders with gauge. It sees an average of twenty-five gynae clients per month & register average of five new patients per month for ante-natal care. Annual delivery rate is about forty. The facility offers medically assisted conception (MAC) including intrauterine insemination, invitro fertilization, intracytoplasmic sperm injection. Good percentage of our obstetric patients who are high risk or have had period of subfertility/infertility tend to have elective caesarean section from both medical indication & anxiety on the part of patient & obstetrician.

**SUBJECTS:** Case files of clients who delivered between January 2012 to December 2014 via caesarean section were retrieved & reviewed to determine the type of CS (elective or emergency), numbers of days spent from delivery to discharge, presence of wound infection indicated if there were indurations and swelling of the wound edges, discharge of pus or wound dehiscence on day 2/3 on discharge or day 10 post operation review visit. Clients who have had only caesarean section birth and those who have had both modes of births were approached to give feedback on what their birth experience was.

**DESIGN:** A descriptive study comprising retrospective case review study and cross sectional study. All caesarean section births from January 2012 to December 31, 2014 were reviewed & information extracted based on predetermined variables inputted into SPSS software. A self administered questionnaire to determine how some of the clients who had Caesarean section only births & those who had both CS and vaginal births in our centre who had reason to visit the hospital within Monday May 4, 2015 to Sunday June 7, 2015 (5 week period) were approached & counselled on willingness to participate in the study. Only consenting clients were included in the cross-sectional study.

**ANALYSIS:** The data extracted were entered into statistical package for Social Sciences (SPSS) version 20.0. Means, proportion & percentages of discrete variables were determined. Feedbacks of client who had CS or both CS & vaginal births was also summarised.

**LIMITATION:** The number of clients that were recruited for the cross sectional study are few not being representative.

## **Results**

There were total of one hundred & twenty one deliveries in the three year period, giving annual delivery rate as 40.33. The total number of women delivered by caesarean section during the period was eighty three putting the caesarean section rate as 68.59%. 79.5% (66) of the clients were in age bracket 25-34. None was less than 20 years & none above 44 years. Professionals, civil servants & teachers in that order constitutes the bulk of clients seen in the study centre with professionals taking almost a third of the population, see Table 1.

Caesarean section was done electively in 53% (44) of times. For every two caesareans done one is likely to be elective & one would be an emergency section. Mean time to ambulation from surgery was  $24.71 \pm 3.72$  with close to 90% ambulating in 24 hours. (Table 2). Mean time to catheter removal after surgery was  $23.71 \pm 1.85$  while mean to oral sip was  $22.91 \pm 5.55$  hours with close to 95% already taking oral fluids by 24 hours post operatively. Mean time to commencement of breastfeeding was  $28.34 \pm 12.47$  hours. Though the mean time to discharge was  $71.71 \pm 10.76$  hours the minimum time to discharge in this review was 24 hours (Table 2). Less than one-fifth (18.1%) of the women who underwent caesarean section had a morbid experience (chart 1), less than 5% experienced spinal headache, wound infection & post partum hemorrhage. One of ten women developed fever post-CS in this review while about 15% needed extra pain medications (Table 3).

Outcome of deliveries is as shown in Table 4. Twinning rate in this review was 6% and male : female distribution of 52.3%: 47.7%. One perinatal death was recorded with no maternal death throughout the period of review.

Ten clients who have had only caesarean birth in the hospital & came for care during the study period & consented to participating responded as follows: 70% have no regrets whatsoever on account of caesarean delivery they had. Regrets listed by 30% of participants included pain & scar associated with caesarean section, not having experience of natural birth, making subsequent pregnancies high risk by reason of previous scar, longer than expected healing process & skin reaction to stitches that led to wounds formation. When asked for what they wished could be changed in caesarean birth process. 50% were happy enough with the present process, one of the five responders only wished she had opted for CS earlier than she did while in labor. Of the 50% that want something changed four out of five would want a change that concerns anaesthesia like removing restriction on raising head or upper part of body, having to lie down for hours, coldness of entire body & one just requested for alternative anaesthesia( all Caesarean sections under review had spina (regional ) anaesthesia. One of five (20%) wished that the cost of caesarean operation is reviewed downwards & another 20% preferred alternative stitching method to avoid skin reaction. 10% of participant felt she would be afraid at the thought of need to repeat CS in the future because 'every surgery is associated with its own risk'. The thoughts of the participating clients (90% of total clients) who will not entertain fear or anxiety if they need repeat CS are as follows : CS is comfortable & very fast 'in a twinkle of eyes or a short dream the baby arrives', it gives opportunity to choose date & plan towards it, it is more reassuring for babies safety than vaginal delivery & because 'labour pain was too intense, wouldn't mind avoiding it'.

Only two clients who have had both caesarean & vaginal birth had opportunity of responding to questionnaire during the study period. One had no regret doing CS, the other felt that the healing process took more time than expected. The two participants exempted themselves from giving advantages of vaginal birth over CS but gave following reasons as advantages of CS over vaginal birth: Its stress & labor pain free, sure of healthy baby with 'no anticipated asphyxia on the side of baby'. One desired that anaesthesia be improved to avoid spinal headache & back pain. When asked to choose preferred route of delivery in next birth, one chose vaginal route 'because one can help self at home after delivery' while the other chose CS for being stress free.

## Discussion

Caesarean section rate in this review is 68.59%. This is higher than 15% prescribed by world health organisation & higher than 22.2% (Komolafe et al. 2005) & 34.5% (Igberase, Ebeigbe & Andrew 2009) hospital based rates quoted in Nigeria. It must be realised that Nigeria is still one of the countries where overall CS rate is still less than 5% (Gibbons et al.,2010). This high hospital based figure may be because being a specialist obstetric centre that also do advanced

fertility management many of the pregnancies are presumably tagged ‘ very precious’ and are delivered electively. Mothers who also have successful IVF treatment in other city but resident in the environ of the unit are referred here for obstetric care.

It is pertinent to note that the mean time to self-freedom parameters like ambulation, starting oral sips, removal of urethral catheter & breastfeeding are all within 24hours. This is a departure from 48-72 hours of immobilisation & nil per oral being practised in the past & this is in keeping with current best practices (Fasuba et al. 2000). The mean time to discharge of 71.7 hours is also a departure from prolonged hospital stay of yester years (Fasuba et al. 2000). It should be noted that studies have been done when women were discharged a day after CS with no adverse effect compared to after 2 days (Tan, Norazilah & Omar 2012).

Morbid incidence in terms of wound infection, spinal headache, postpartum hemorrhage etcetera was less than 5% in this study & is in keeping with best practices as shown by Gregson (2011) where wound infection rates fell to less than 5% after introducing national institute for health & care excellence (NICE) guidelines with use of hydrofiber & hydrocolloid combination for wound management.

The feedback from the patients who had undergone CS in the facility showed that majority had no regret, they would want spinal anaesthesia to be more tolerable & nine of ten will not be scared if asked to do CS again in their next delivery. This appears to give an impression of improved acceptance but of those who have had both CS & vaginal birth (only 2 clients) there was no clear preference for CS over vaginal birth as expressed by mothers who had only CS birth.

This review showed that many of self help ‘ freedom’ desired by women in our environment which makes aversion for CS to still be very high when compared to vaginal birth are gradually at the reach of CS mothers. There should therefore be a corresponding increase in acceptance of CS especially in the rural areas where it has been shown that a minimum level of 5% to 10% is needed to cause a significant reduction in both maternal & perinatal mortality. There was no maternal death during the period of review. There was one perinatal death with perinatal mortality rate of 11.4 per 1000 livebirths. Arguably if majority of CS mothers can be discharged a day after CS then it may be a lot easier to convince more women to consent to doing CS when indicated.

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## **Appendix 1**

### **Questionnaire 1**

#### **A Study on Thoughts of Women on Caesarean Compared to Vaginal Birth.**

##### **BOTH VAGINAL & CS BIRTH**

1. What regrets do you have after CS birth?
  - a. ....
  - b. ....
  - c. ....
2. What in your own words is the advantage of vaginal birth over CS birth?
  - a. ....
  - b. ....
  - c. ....
  - d. ....
3. What in your own words is the advantage of CS birth over vaginal birth?
  - a. ....
  - b. ....
  - c. ....
  - d. ....
4. What would you want changed in the process of CS delivery?
  - a. ....
  - b. ....
5. What would be your preferred choice of birth route in the next delivery and why?
  - a. ....
  - b. ....

### **Questionnaires 2**

#### **CS Birth Only**

#### **A Study of Thoughts of Women on Caesarean Section Birth.**

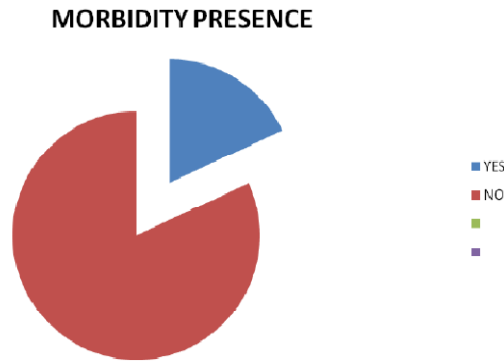
1. What regrets do you have delivering by CS?
  - a. ....
  - b. ....
  - c. ....
2. What would you wish changed in the whole process of caesarean delivery?

- a. ....
  - b. ....
  - c. ....
  - d. ....
3. Would you be scared if your next birth is going to be through caesarean section?
- a. Yes .....
  - b. No .....
  - c. If yes, give reasons:  
 .....  
 .....
  - d. If No, give reasons:  
 .....  
 .....

**Appendix 11**

**Presence of Morbidity Post Caesarean Section**

**Chart 1**



**Table 1** Sociodemographic Data

PARAMETERS	FREQUENCY	PERCENTAGE (%)
<b>AGE(YEARS)</b>		
20 - 24	1	1.2
25-29	23	27.7
30 - 34	43	51.8
35-39	12	14.5
40-44	4	4.8
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>OCCUPATION</b>		
PROFESSIONALS	25	30.1
CIVIL SERVANTS	18	21.7
TEACHERS	11	13.3
BUSINESS WOMEN	9	10.8
PETTY TRADERS	6	7.2
STUDENTS	6	7.3
HOUSEWIFE	5	6.0

LECTURER	2	2.4
ARTISAN	1	1.2
	83	100

**Table 2** Self-Help/ Independence Indicators

PARAMETERS	FREQUENCY	PERCENTAGE(%)
<b>TIME TO AMBULATION (IN HOURS)</b>		
12	2	2.4
24	71	85.5
30	5	6.0
36	5	6.0
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>TIME TO CATHETER REMOVAL(HOURS)</b>		
12	2	2.4
24	81	97.6
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>TIME TO ORAL SIP(HOURS)</b>		
12	12	14.5
24	67	80.7
30	1	1.2
36	2	2.4
48	1	1.2
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>TIME TO BREASTFEEDING (HOURS)</b>		
12	2	2.4
24	55	67.5
30	9	10.8
36	13	15.7
48	1	1.2
MISSING	2	2.4
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>TIME TO DISCHARGE(HOURS)</b>		
24	2	2.4
48	2	2.4
60	2	2.4
72	71	85.6
96	6	7.2
<b>TOTAL</b>	<b>83</b>	<b>100</b>

**Table 3** Morbidity Score Table

PARAMETERS	FREQUENCY	PERCENTAGE(%)
<b>SPINAL HEADACHE(SH)</b>		
NIL SH	81	97.6

SH with no extra treatment	1	1.2
SH with further outpatient review	1	1.2
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>POSTPARTUM HEMORRHAGE(PPH)</b>		
NO PPH	82	98.8
YES & needed blood transfusion	1	1.2
<b>Total</b>	<b>83</b>	<b>100</b>
<b>PAIN COPING ABILITY</b>		
Coped well	70	84.3
Extra pain injections needed	12	14.5
Extra pain tablets needed	1	1.2
<b>Total</b>	<b>83</b>	<b>100</b>
<b>Fever following CS</b>		
No fever	75	90.4
Fever within 36hours	8	9.6
<b>Total</b>	<b>83</b>	<b>100</b>
<b>WOUND STATUS</b>		
Clean wound	80	96.4
Minimal wound gaping	1	1.2
Minimal wound edge gaping with serous discharge	1	1.2
Moderate wound edge gaping with serous discharge	1	1.2

**Table 4** Outcome of Delivery

<b>PARAMETERS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE(%)</b>
<b>SEX OF BABY</b>		
MALE	41	49.4
FEMALE	37	44.6
FEMALE,FEMALE	3	3.6
FEMALE, MALE	2	2.4
<b>TOTAL</b>	<b>83</b>	<b>100</b>
<b>NO OF BABY</b>		
SINGLETON	78	94.0
TWIN	5	6.0
<b>BABY OUTCOME</b>		
ALIVE AT 6WEEKS	87	98.8
DEAD AT 6WEEKS	1	1.2
<b>MOTHER OUTCOME</b>		
ALIVE AT 6 WEEKS	83	100
DEAD AT 6WEEKS	0	0
<b>TOTAL</b>	<b>83</b>	<b>100</b>