

Women's Involvement in the Decision to be Delivered by Caesarean Section in Sub Saharan Africa.

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SUMMARY

The aim of this study is to determine the degree and nature of women's involvement in the decision to deliver by Caesarean section.

METHODOLOGY: a cross sectional descriptive multi-centre study on post partum women who were delivered by Caesarean section in the three study centres.

RESULTS:

The five most common indicators for Caesarean section include cephalo-pelvic disproportion, prolonged labour, malpresentation, pregnancy induced hypertension and ante partum haemorrhage, which accounted for 70% of the indications for Caesarean section.

The commonest influence on respondents' decision to have Caesarean section was physician factors, followed by religious and cultural factors. Husbands influenced majority of the respondents during decision for Caesarean section. The respondents' agreement with decision for Caesarean section varied significantly as the number of previous Caesarean section, being highest among women with 4 previous Caesarean section.

In conclusion, the majority of women were found to be involved in the decision to have Caesarean section, and the most influential factors on them during the decision process were physician factors and husband's presence. In this environment, the greater the number of previous Caesarean section a woman has had in the past the more likely would she accept Caesarean section in subsequent deliveries as a better option.

RECOMMENDATION: There is need for further studies to determine the effect of socio-demographic factors on decision to have caesarean section as well as satisfaction of the outcome.

KEY WORDS: Decision for Caesarean section, women involvement, satisfaction and influential factors.

Date Accepted for Publication: 25th March, 2012

NigerJMed 2012: 150-155

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INTRODUCTION

Caesarean section (CS) is a life-saving surgery carried out on women who for one reason or the other are unable to have vaginal delivery. CS could be elective or emergency, which may require urgent decision making by the parties involved, which include the doctor, patient, relations and even neighbours and other concerned individuals.

In preoperative period, the patient and or her relations are counseled and their consent obtained before the surgery is embarked upon. Sometimes the decision to either accept or reject CS is taken by somebody else who may not even be in the vicinity of the hospital or have any knowledge of the need for the life saving surgery.

The common causes of CS include cephalo-pelvic disproportion, previous CS, eclampsia, failed induction of labour and placenta previa, fetal distress, breech presentation, fetal macrosomia, multiple pregnancies^{1,2,3,4}.

In Australia, Turnbull et al reported that majority of women were involved in the decision to have a CS⁵. The factors influencing their decision included physical duress and partner's reaction during labour for emergency CS, while considerations about recovery, planning for the event and pain were important factors for elective CS. Both groups needed information from the doctor to influence their decision. The authors reported that a high proportion of women with breech presentation and others with previous CS preferred CS if given the option, while majority of women agreed that they were involved in decision to have a CS.

Boyce et al 1992 linked psychological problems to "a sense of failure" on the part of women who anticipated and prepared for a normal vaginal delivery but had CS delivery instead⁶.

Mould et al 1996, found a higher proportion of women being involved in decision to have elective CS than emergency CS⁷. About half of the women they studied reported being satisfied with the decision, while another half said that they would prefer elective CS in the next pregnancy if given the choice. They concluded that women undergoing caesarean section were well informed and played active role in the decision-making process.

In Scotland, Moffat et al found that women were influenced by their own previous experiences and expectations, and were uncomfortable with having responsibility for decision making⁸. The authors denied any evidence of clear preferences or strong demands for elective caesarean section. Women who have had a previous caesarean section look forward for information

and guidance from medical personnel based on their individual circumstances.

In Germany, Kolip et al found that the women were most satisfied with the information provided by doctors and midwives⁹. They reported that most women were satisfied with their decision but required more information.

Chigbu and Iloabachie found a high prevalence of caesarean section refusal in south eastern Nigeria. Maternal reasons for such refusals included fear of death, economic reasons, desire to experience vaginal delivery and inadequate counseling¹⁰. It is, therefore, necessary to determine the involvement of women in decision for CS, their satisfaction, and the factors that influenced their decision to deliver by CS.

THE STUDY OBJECTIVE: To determine the degree and nature of women's involvement in the decision to deliver by Caesarean section.

STUDY POPULATION AND METHODS

Study Design: Cross sectional descriptive multicentre study.

Setting/ Study Location: The multi centre study locations include Nnamdi Azikiwe University Teaching Hospital, Nnewi, a Federal government owned tertiary health institution; St. Charles Borromeo Hospital, Onitsha, a faith-based tertiary health institution; and General Hospital, Onitsha, a tertiary health facility owned by the Anambra State government

Methods: Structured questionnaire was administered on post CS women, before being discharged from hospital or upon attendance at the 6th week post natal clinic or during their early visit to the infant welfare clinic for immunization.

Information was extracted from case notes of patient to complement the questionnaire; such information include LMP, EDD, previous obstetrics history/ CS status, indication for the last CS, and the number of antenatal visits during the last pregnancy.

Inclusion criteria:

All women whose last delivery was by CS, and who were met at post natal visit and infant immunization clinics in the three centres during the study period were enrolled.

Exclusion criteria:

Women who did not have CS delivery during the previous 6 weeks were excluded.

Ethical Precepts:

The subjects were informed verbally, and their consent freely obtained. They were informed of their right to withdraw from the study any time before its conclusion. They were assured that the information they gave would be treated with utmost confidentiality. They were promised that their identities would not be disclosed and they would not be asked to pay any money for participating.

Main outcome measures:

- Women involvement in decision to have CS.
- The effect of past obstetric history on the decision to have CS
- The individuals who helped the subjects to make up their minds.
- The factors that influence decision making process by subjects.
- Satisfaction with the decision to have CS.

DATA ANALYSIS:

Data analysis was done using SPSS soft ware package version 9. Summary statistics, frequency distribution, cross tabulation tables and Chi-squared test for significance using p value of 0.05 were used.

RESULT

Out of the 335 questionnaires distributed, 8 were rejected for material errors and incomplete answers, 327 were therefore returned for analysis making 97.6%.

Table 1

Distribution of Respondents Among The Hospitals

Hospitals	Frequency	Percent
St Charles Borromeo Specialist Hospital, Onitsha	36	11.0
General Hospital, Onitsha	206	63.0
Nnamdi Azikiwe University Teaching Hospital, Nnewi	85	26.0
Total	327	100.0

Respondents from General Hospital, Onitsha were in the majority.

Table 2 Summary Statistics of Some Socio Demographic Variables

	ANC visits	Age of respondent	Parity of respondent	No of persons staying with subjects during labour
No of subjects	327	327	327	327
Mean	4.72	29.48	2.16	1.83
Median	5.00	29.00	2.00	2.00
Std. Deviation	2.857	5.758	1.888	1.148
Skewness	.191	.251	1.167	1.642
Minimum	0	16	0	0
Maximum	17	48	11	10

The mean number of antenatal visits was Mean \pm STD, 4.72 \pm 2.8575 (or median 5), while the Mean \pm STD of age was 29.48 \pm 5.758. The Mean \pm STD for parity was 2.16 \pm 1.888 (median 2), on the average 2 persons stayed with the respondents during labour (median 2).

Table 3 Distribution Of The Educational Levels of Respondents And Spouses Occupation.

Educational levels	Frequency	Percent	Cumulative Frequency
Tertiary completed	91	27.8	27.8
Tertiary drop-out	15	4.6	32.4
Secondary completed	108	33.0	65.4
Secondary drop-out	46	14.1	79.5
Primary complete	42	12.8	92.3
Primary drop-out	9	2.8	95.1
No education	16	4.9	100.0
Total	327	100.0	
Occupation	Frequency	Percent	Cumulative Percent
businessman	99	30.3	30.3
professional	38	11.6	41.9
senior civil servant	52	15.9	57.8
trader	90	27.5	85.3
artisan and other rank	33	10.1	95.4
apprentice	13	4.0	99.4
unemployed	2	.6	100.0
Total	327	100.0	

About one third of the respondents completed secondary school, while 27.8% completed tertiary education. A majority of the respondents (65%) at least completed secondary education. A majority of respondents' spouses (85.3%) at least belong to the middle level socio economic category. The highest category was that of the business men (30.3%) followed by traders (27.5%).

Table 4 Indication For Caesarean Section

	Frequency	Percent	Cumulative Percent
Cephalo pelvic disproportion	93	28.4	28.4
Prolonged labour	44	13.5	41.9
Malpresentation	41	12.5	54.4
Pregnancy induced Hypertension	35	10.7	65.1
Ante partum haemorrhage	19	5.8	70.9
Maternal Distress	18	5.5	76.4
Foetal distress	16	4.9	81.3
Previous CS	15	4.6	85.9
Cord prolapse	8	2.4	88.3
Prevention of mother to child transmission	4	1.2	89.5
Others	34	10.5	100.0
Total	327	100.0	

Cephalo pelvic disproportion is the commonest indication (28.4%) for C-Section, followed by prolonged labour (13.5%), Malpresentation (12.5%), Pregnancy induced Hypertension (10.7%), Ante partum haemorrhage (5.8%) and Maternal distress (5.5). Foetal distress and Previous C-section accounted for 4.9% and 4.6%, respectively. The five most common indications for CS account for 70% of CS cases.

Table 5 Distribution of Factors And Persons Influencing Respondents Decision.

Factors influencing Decision	Frequency	Percent
Doctors	191	58.4
Religion	35	10.7
Culture	27	8.3
Finance	13	4.0
Forced by relations	5	1.5
Others	56	17.1
Total	327	100.0
Persons who influenced decision	Frequency	Percent
Husband	178	54.4
Mother	64	19.5
Sister	36	11.0
Father	4	1.2
Religious leaders	3	.9
Neighbours and others	36	11.0
None	6	1.8
Total	327	100.0

The commonest (58.4%) influence on the respondents was physician factors, followed by religious and cultural factors. Financial factor counted less (4%). The husbands were in majority of those who helped the respondents to make up their minds, followed by mothers and sisters 19.5% and 11%, respectively. A minority of respondents did not receive any support to make up their minds (1.8%).

Table 6 Involvement Of Respondents In Decision For CS And Attitude To Doctors Explanation

Decision process	Yes (%)	No (%)
Respondents involvement in decision for CS	300 (91.7)	27 (8.3)
Understood doctors explanation	271 (82.9)	56 (17.1)
Respondent believed explanation	264 (80.7)	63 (19.3)
Insistence on vagina delivery initially	111 (33.9)	216 (66.1)

The majority of respondents were involved in the decision making process, about one third of the respondents insisted initially on being allowed to continue with vaginal delivery despite the explanation by the doctors.

Table 7 Cross Tabulation of Previous Obstetric History And Respondent's Agreement With The Decision For Caesarean Section.

Previous obstetric history	Respondent's agreement with the decision				Total
	strongly agreed	agreed reluctantly	disagreed	not sure	
No previous Caesarean Section	122(49.0%)	80 (32.1%)	21 (8.4%)	26 (10.4%)	249(100.0%)
1 Previous CS	22 (62.9%)	8(22.9%)	1(2.9%)	4 (11.4%)	35(100.0%)
2 Previous CS	20 (83.3%)	3(12.5%)		1 (4.2%)	24 (100.0%)
3 Previous CS	14 (100%)				14 (100.0%)
4 Previous CS	5 (100.0%)				5(100.0%)
Total	183(56.0%)	91(27.8%)	22 (6.7%)	31(9.5%)	327(100.0%)

Pearson Chi- Squared value = 29.181; df = 12; p value = .004

More than half of the respondents (56%) strongly agreed with the decision to have CS, 27.8 agreed reluctantly, while 6.7% disagreed and 9.5% were not sure. The table shows that the ratio of respondents who strongly agreed with the decisions increased as the number of previous CS increased. The same trend is noted in the other response 'agreed reluctantly'. This association with previous CS and respondents were statistically significant ($p < .05$).

Table 8 Crosstabulation of Previous Obstetric History And Insistence on Vaginal Delivery.

Previous obstetric history	Insistence on vaginal delivery initially		Total
	No	Yes	
No previous Caesarean Section	152 (61.0%)	97 (39.0%)	249 (100.0%)
1 Previous CS	24 (68.6%)	11 (31.4%)	35 (100.0%)
2 Previous CS	21 (87.5%)	3 (12.5%)	24 (100.0%)
3 Previous CS	14 (100.0%)		14 (100.0%)
4 Previous CS	5 (100.0%)		5 (100.0%)
Total	216 (66.1%)	111 (33.9%)	327 (100.0%)

Pearson Chi-Squared Value = 17.573; df = 4; p value = 0.001

On the whole, about one third of the respondents insisted on vaginal delivery (33.9%) initially.

The ratio of respondents who insisted on vaginal delivery initially decreased as the number of previous CS increased from 0 to 4. The reverse is the case for the negative answer. The association was statistically significant ($p < 0.05$).

DISCUSSION

A majority of the respondents had at least completed their secondary education, while most of their spouses belonged to the middle socio economic class.

The five most common indicators for CS in this study include cephalo-pelvic disproportion, prolonged labour, malpresentation, PIH and APH, which accounted for 70% of the indications for CS. These findings agree with those made by other researchers in sub Saharan Africa¹²³⁴. There was no attempt to categorise CS into elective and emergency. There is need for further studies to look into the difference in the two categories.

In this study, majority of respondents (95%) were involved in the decision to have CS. The figure in this study is by far higher than the figure reported by Turnbull et al.

The commonest influence on respondents' decision was physician factors, followed by religious and cultural factors. The physician factors which were considered to be influential in decision making for CS included confidence in the competence of the doctor to carry-out the surgical operation successfully and fear of pain during and after surgery as well as fear of the outcome of anaesthesia. The physician factors should become the focus of preoperative counseling to assuage the fears of patients and relatives over surgical intervention. The next most important consideration found in this study was religious factors which include belief in miracles, prayers and divine intervention. Some patients rely on their religious leaders for decisions to have CS. These religious leaders could be made to play important roles in the decision process and in educating their members on the dangers of delay in the decision for emergency CS.

The use of physical duress to help make up the minds of women to have CS was not found in this study. This is probably because men themselves were not favorably disposed to CS than the women. The study environment in which Turnbull et al carried out their research (Australia) is probably more advanced socially than the setting in this environment. Health insurance is the mode of health financing in Australia and this removes the financial burden of the CS from the patients and their husbands.

Husbands were found to have exerted influence on majority of the respondents during decision for CS, followed by mothers and sisters. This is probably because husbands are culturally regarded as heads of families to take decisions on matters regarding health care delivery and they are expected to pay the hospital bills.

The one third of respondents who initially insisted on vaginal delivery had to accept CS after being convinced of the futility of such insistence. Persuasion was used rather than duress as was reported by Turnbull et al.

The respondents' agreement with decision to have CS varied significantly with the number of previous CS, being highest among those who had 4 previous CS. It is possible that having had previous CS, women were more likely to accept Caesarean delivery as providing a better and safer option for them. It is probable that their previous surgical experience could have doused their fears and uncertainties about CS.

Turnbull et al in their work assumed that the term "strongly agreed" connoted satisfaction. This study finds

this connotation to be logically plausible, although, satisfaction would be interpreted to mean “satisfaction with the decision to have CS” and not “satisfaction with the outcome”, which is a multifactorial phenomenon that cannot be based on just the response, “strongly agreed”. The number and ratio of respondents who initially insisted on vaginal delivery decreased significantly as the number of previous CS increased; being lowest with the group who had 4 previous CS. The initial insistence on vaginal delivery probably meant that the subject considered CS not to be the better option and displayed lack of satisfaction in the decision.

The ratio of respondents who understood doctors explanation increased as the number of previous CS increased. However, this was not statistically significant. In conclusion, the majority of the subjects were involved in the decision to have CS, while physician factors and husband's presence to a large extent influenced the subjects during the decision process. The greater the number of previous CS a woman has had in this environment the more likely would she accept CS in subsequent deliveries.

RECOMMENDATION

There is need for further studies to determine the effect of other socio demographic factors on decision to have CS and satisfaction with the outcome. There is also the need to determine the effect of these factors differently in the elective and emergency CS.

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