

Trends of Hospital Discharge after Uncomplicated Caeserean Section in South-Eastern Nigeria Tertiary Hospitals

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Abstract Background: Obstetric delivery is the most frequent cause of hospital admission and the length of stay in hospital after birth varies from one country to another and from one maternity unit to another, depending on economic factors, attitudes to childbirth and traditions in obstetric care. **Objective:** The aim of this study was to analyze the trends and determinants of hospital discharge following uncomplicated caesarean section in South-Eastern Nigeria tertiary hospitals. **Methodology:** It is a cross-sectional questionnaire based study. The study population comprises Gynaecologists and Obstetricians practicing in tertiary hospitals in south eastern Nigeria. The study was carried out among obstetricians-Gynaecologist at the Federal Teaching Hospital Abakaliki (FETHA) and those who attended the Eastern sector zonal meeting of the Society of Gynaecology and Obstetrics of Nigeria (SOGON) held on 9TH September 2017 in Enugu coal-city, Enugu State, Nigeria. **Results:** The study included 286 participants. The study showed that few (16.7%) of the patients had early discharge and late hospital discharge accounted for 83.3%. The determinants of early hospital discharge were cost of treatment (11.8%), obstetricians personal preferences (10.8%), lack of bed space (4.9%) and patient choice (4.9%). Hospital policy (36.3%) and fear of readmission for maternal or neonatal complications (59.8%) are major reasons for late hospital discharge following uncomplicated caesarean section.

Keywords: hospital discharge, uncomplicated caeserean-section, obstetricians-gynaecologist, South Eastern Nigeria

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1. Introduction

Obstetric delivery is the most frequent cause of hospital admission and the length of stay in hospital after birth varies from one country to another and from one maternity unit to another, depending on economic factors, attitudes to childbirth and traditions in obstetric care. [1-5]

It has become common practice to discharge women from hospital early after caesarean section, to satisfy their wishes or to reduce workload. [6,7] During the last 60 years there has been a worldwide tendency to reduce the length of time women stay in the hospital after giving birth. [8] The issue of the appropriate length of stay after delivery is complex and hotly debated. [9,10,11,12] In 1992, the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists recommend a 2-day stay after a vaginal delivery and a 4-day stay after a cesarean section if there have been no complications. [4] Studies have also shown that early discharge of healthy

mothers is beneficial to the mothers in terms of their physical and emotional health, as well as to the facilities in terms of economic considerations. [13-18]

The aim of this study was to analyze the trends and determinants of hospital discharge following uncomplicated caesarean section in South-Eastern Nigeria tertiary hospitals.

2. Materials and Methods

2.1. Study Area

The study was carried out among Obstetricians-Gynaecologist at the Federal Teaching Hospital Abakaliki (FETHA) and those who attended the Eastern sector zonal meeting of the Society of Gynaecology and Obstetrics of Nigeria (SOGON) held on 9TH September 2017 in Enugu coal-city, Enugu State, Nigeria. The Society of Gynaecology and Obstetrics of Nigeria is an umbrella professional organization of Gynaecologists and Obstetricians in Nigeria. It has a vision that Nigerian women achieve the

highest possible standards of physical, mental, reproductive and sexual health and wellbeing throughout their lives.

Federal Teaching Hospital Abakaliki (FETHA) is located in Ebonyi State; one of the five states in the South-East Geopolitical zone of Nigeria. It was created in 1996 from the largely rural areas of the pre-existing Enugu and Abia states. It has an estimated population of 2.1 million people (2006 census) and occupies a land mass of 5932km², sharing boundaries in the West with Enugu state, Cross-river in the South and Benue state in the North. There are 13 general hospitals, one in each LGA and the Federal Teaching Hospital Abakaliki is located within the centre of the state capital. It receives referrals from the general hospitals, mission hospitals and primary health centres as well as privately owned hospitals and clinics. It also receives referral from neighboring states of Benue, Enugu, Cross-River and Abia.

2.2. Study Design

It is a cross-sectional study. The study population comprises Gynaecologists and Obstetricians practicing in tertiary hospitals in south eastern Nigeria.

2.3. Data Collection Instrument and Procedures

A structured and pre-tested questionnaire was prepared in English language. Data was collected by the researchers. The questionnaire has two parts. The first part included socio-demographic variables. The second part assessed patterns/reasons for choice of postoperative hospital discharge. The questionnaires were given to the participants who answered and returned them to the researchers.

2.4. Data Quality Control

Data quality was controlled through the provision of training to the data collectors and supervisors about the overall data collection procedures. The collected data was checked for completeness, consistency, accuracy and clarity by the supervisor and the principal investigator.

2.5. Data Processing and Analysis

All returned questionnaires were checked manually for the completeness and consistency of responses. The collected data was coded and entered and analyzed using Epi Info version 7.0 (CDC, USA). For the descriptive analysis, continuous variables were summarized using means, medians, and standard deviations (SDs), while categorical variables were summarized using proportions.

2.6. Ethical Consideration

Before commencement of the study, ethical approval was sought for and obtained from the Research and Ethical Committee of the Federal Teaching Hospital, Abakaliki. Written informed consent was obtained from each study participant to confirm willingness to participate after explaining the objective of the study. Respondents' names and personal identifiers were not included in the written questionnaires.

3. Results

The study included 286 participants. The mean age of the study participants was 37.9 ± 7.6. Majority (80.4%) of the study participants were males. Registrars accounted for 52% of participants. Of those who participated in the study, 92.2% practice in urban areas (Table 1).

The study showed that few (16.7%) of the patients had early discharge and late hospital discharge accounted for 83.3% (Table 2). The determinants of early hospital discharge were cost of treatment (11.8%), obstetricians personal preferences (10.8%), lack of bed space (4.9%) and patient choice (4.9%) (Table 2). Hospital policy (36.3%) and fear of readmission for maternal or neonatal complications (59.8%) are major reasons for late hospital discharge following uncomplicated caesarean section (Table 2).

The duration of hospital admission from this study was determined by the indication for caesarean section (82.4%), postoperative haemoglobin level (69.6%), clinical state of the mother (67.6%), tolerance of oral intake (47.1%) and type of skin closure (31.4%). (Table 2).

Reduced hospital cost (87.3%), lower risk of nosocomial infection (75.5%), faster maternal recovery (39.2%) and higher maternal satisfaction (54.9%) are some of the benefits of early discharge cited by the study participants (Table 2).

Postoperative complications following early discharge were uncommon. Majority (61.8%) of participants cited no complications among the patients that had early hospital discharge (Table 2). The commonest complication encountered among women that had early discharge was wound breakdown (14.7%). According to the study, the ways to enhance early hospital discharge following uncomplicated caesarean section include proper patient counseling (55.9%), proper patient selection (71.6%), early ambulation (80.4%), early initiation of oral feeding (53.9%), early removal of urethral catheter (55.9%), subcuticular skin closure (41.2%) and reduced institutional barrier to early discharge (40.2%) (Table 2).

Table 1. Socio-demographic Characteristics

Variables	Frequency	Percentage
Age (yrs)		
<30	48	15.7
30-40	173	56.5
41-50	52	17.0
51-60	27	8.8
>60	6	2.0
Sex		
Male	246	80.4
Female	60	19.6
Cadre of Practitioner		
Consultant	27	8.8
Senior registrar	120	39.2
Registrar	159	52.0
Place of Practice		
Rural	24	7.8
Urban	282	92.2
Level of Practice		
Tertiary	291	95.1
Secondary	15	4.9
Institution of Practice		
Government facility	300	98.0
Private	6	2.0

Table 2. Patterns /Reasons for Choice of Post-Operative Hospital Discharge Practice

Variable	Frequency	Percentage
Routine discharge of patient who had uncomplicated c/s		
Early; same day-3 rd day post-op	51	16.7
Late ;4 th day or more	255	83.3
Reasons for early discharge		
Hospital policy	3	1.0
Lack of bed spaces	15	4.9
Patients choice	15	4.9
Your personal preference	33	10.8
To save cost for patient	36	11.8
Request from insurance companies	-	-
Lack of adequate human/material resources to care for patients	3	1.0
No added benefit of late discharge	36	11.8
No reason	-	-
Reasons for late discharge		
Hospital policy	111	36.3
Patients choice	15	4.9
Fear of readmission for maternal/neonatal post-op complications	183	59.8
None	12	3.9
Factors determining length of hospital stay of your patients with uncomplicated c/s		
Indication for C/S	252	82.4
Intra-operative complications, eg hemorrhage		
Post-op PCV	213	69.6
Type of skin closure	96	31.4
Nature of anesthesia	12	3.9
Type of C/S (emergency/elective)	96	31.4
Tolerance of oral intake	144	47.1
Establishment of breast feeding	33	10.8
Clinical state of the baby	54	17.6
Pregnancy outcome	60	19.6
Maternal socio -demographic factor	39	12.7
Clinical state of the mother	207	67.6
I don't know	-	-
Possible benefits of early discharge		
Reduced cost	267	87.3
Higher initiation/sustenance of breast feeding	39	12.7
Enhanced mother-infant bonding	102	33.3
Faster maternal recovery	120	39.2
Higher maternal satisfaction	168	54.9
Lower risk of nosocomial infections	231	75.5
Lower risk of puerperal blues/ depression	78	25.5
Lower risk of thromboembolic phenomenon	144	47.1
I don't know	6	2.0
Efficient use of hospital resources	81	26.5
Ways to enhance early discharge		
Proper patient selection	219	71.6
Proper patient counseling	171	55.9
Early initiation of oral intake	165	53.9
Early initiation of breast feeding	63	20.6
Use of regional anesthesia	87	28.4
Minimal use of sedating opioids analgesics	87	28.4
Encourage early ambulation	246	80.4
Subcuticular skin closure	126	41.2
Early removal of urethral catheter	171	55.9
Reduced institutional barrier to early discharge	123	40.2
Use of WHO checklist	81	26.5
Adequate patient follow up	117	38.2
I don't know	6	2.0
Have you had any complication/reasons for readmission of c/s patients discharged early		
Yes	111	36.3
No	189	61.8

Variable	Frequency	Percentage
If yes, how many times out of how many operated patients		
1/5	42	13.7
1/100	21	6.9
2/20	9	2.9
1/7	6	2.0
1/20	6	2.0
4/50	6	2.0
2X	3	1.0
5/100	6	2.0
2/100	3	1.0
2/50	3	1.0
1/10	6	2.0
What complications did you have?		
SECONDARY PPH DUE TO GDM	6	2.0
WOUND BREAKDOWN	45	14.7
PEUPERAL SEPSIS	24	7.8
SURGICAL SITE INFECTION	24	7.8
POST-OP PERITONITIS	6	2.0
SYNCOPE	3	1.0
BPV	3	1.0
Have you had any complication for any c/s patient you discharged late?		
YES	69	22.5
NO	99	32.4
If yes, what are the complications?		
WOUND BREAKDOWN	39	12.7
WOUND SEPSIS	18	5.9
NOSOCOMIAL INFECTION	3	1.0
PEUPERAL SEPSIS	9	2.9
WOUND BREAKDOWN	39	12.7
How many times out of how many cases?		
1/8	9	2.9
1/30	6	2.0
5/100	15	4.9
6/120	3	1.0
2/100	9	2.9
Have you had any need for readmission of the patient you discharge late?		
YES	72	23.5
NO	54	17.6
Will you consider early discharge in the future?		
YES	210	68.6
MAYBE	48	15.7
NO	42	13.7
Anaesthesia technique		
GA	69	22.5
SPINAL	225	73.5
LOCAL INSTILLATION	6	2.0
Types of Anaesthesia used		
OPIOIDS	210	68.6
NSAIDS	51	16.7
Any Intraoperative Complications		
YES	120	39.2
NO	180	58.8
If Yes,What Complications		
HAEMORRAGE	102	33.3
ASPIRATION	9	2.9
DIFFICULT INTUBATION	15	4.9
Any Associated Co-Morbidity		
YES	105	34.3
NO	192	62.7
If yes,what co-morbidity		
DM	24	7.8
HTN	30	9.8
PIH	24	7.8
ECLAMPسيا	30	9.8

4. Discussions

This study addressed the issue of variation in obstetric care length of stay and identifying the important variables that affect maternity length of stay following uncomplicated caesarean section in South- eastern Nigeria.

The main objection to early discharge following uncomplicated caesarean section is the contention that the safety of the mother is jeopardized. The present study produced no evidence to support this opinion. Majority (61.8%) of patients had no complications following early hospital discharge. This finding is similar to findings of studies done in California and India. [1,3] Therefore it is safe to discharge women who had uncomplicated caesarean section early especially in our low resource setting where most women are of low socioeconomic status.

There was a substantial variation in length of hospital stay in this study. The variation was attributed to patient clinical risk factors and presence of complications. This finding is similar to findings of a study done in Sydney. [5] This showed that the clinical status of patient is a key determinant of length of hospital stay following caesarean section.

Postoperative complications following early discharge were uncommon. The commonest complication encountered among women that had early discharge was wound breakdown (14.7%). This finding correlates with the finding of a study in India. [1] Therefore adequate effort should be made to prevent this complication by observing strict asepsis during surgery, antibiotic use and proper wound care in the postoperative period.

Discharging women without complications in early post-operative period is an advantageous means of reducing the cost of health care system and expenditure of the family. Most women in developing countries like Nigeria belong to low socio-economic status and are the bread winners of the family. If a patient is admitted for a prolonged period, this will create debt to the family which in turn causes economic burden and psychological stress. This will reflect on the post-natal nutrition to the mother and baby. Hence early hospital discharge following uncomplicated caesarean section should be enhanced by proper patient counseling, proper patient selection, early ambulation, early initiation of oral feeding, early removal of urethral catheter, subcuticular skin closure and reduced institutional barrier to early discharge.

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