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## HIGH PREVALENCE OF CAESARIAN SECTIONS AT A REFERRAL HOSPITAL IN BANGLADESH

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### Abstract

The rate of Caesarean delivery in Bangladesh is not known but thought to have increased markedly in recent years. This observational study addressed the prevalence of various types of deliveries conducted on 2714 subjects attending the postnatal ward of a referral hospital in Dhaka from August 1994 to March 1995. During this period data were collected retrospectively from their registries and clinical history sheets. Of these participants 1509 (55.6%) had a history of normal delivery and 1150 (42.4%) underwent Caesarean sections. Very few (1.7%) had other means of delivery and only 0.7% were reported to have forceps delivery. The Caesarian delivery for the first baby was 14.1%, which gradually decreased in subsequent deliveries. Most of the deliveries, be it normal or Caesarean, were conducted by the trainee doctors (43.6%) and Medical Officers (25.7%). Professors and Assistant Professors performed less than 1%. The normal or Caesarean deliveries were assisted mostly by trainee doctors (54.4%), interns (19.0%) and nurses (15.8%); and very few were conducted by Medical Officers (8.3%) and Assistant Registrars (2.1%). The study observes that the rate of Caesarean delivery is much higher than that observed in western countries. Most of the deliveries in this hospital, whether normal or Caesarean, were found to be conducted by the trainee or junior doctors.

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**Keywords:** Pregnancy, normal delivery, Caesarean delivery, delivery practices, tertiary hospital.

### Introduction

Of 146 million people living in Bangladesh, 20 per cent are women of reproductive age and maternal mortality is a serious problem in this country. Recognizing the comprehensive nature of package services required for maternal and child care for the development of the reproductive health and safe motherhood, Government is committed to the reduction of maternal mortality in Bangladesh. Efforts are being directed to antenatal care, TT vaccination, identification of high risk pregnancies, TBA training, promotion of safe birth practices and family planning which influences maternal and neonatal mortality.

There were several studies that address obstetric problems in Bangladesh, particularly those related to abortions, septic or habitual, and toxemia of pregnancy.<sup>1-8</sup> Some reported on forceps delivery.<sup>9,10</sup>

Although there are a number of studies on Caesarian deliveries done elsewhere,<sup>11-16</sup> there is a dearth of data regarding Caesarian deliveries in Bangladesh. This study looks into the prevalence and practices of deliveries with a focus on Caesarian sections, in a large referral hospital in the capital of the country.

### Methods and Materials

This observational study interviewed and investigated the records of 2714 subjects attending the Postnatal Ward of a referral hospital of Dhaka from August 1994 to March 1995. Data were collected from their registries and clinical history sheets. These history sheets usually maintained detailed clinical information starting from her admission till she got discharged.

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Hospital records were utilized for collection of data using a checklist. Patients delivered normally or by Caesarian section were interviewed to gather in-depth data on key variables using a pre-tested semi-structured interview schedule. SPSS/PC+ was used to prepare frequencies and cross-tabulations.

## Results

Table 1 shows the different types of deliveries conducted in different sites with different outcomes of deliveries. Of these participants (n = 2714), 1509 (55.6%) had a history of normal delivery and 1150 (42.4%) underwent Caesarean sections. Very few (1.7%) had other means of delivery and only 0.7% reported to have forceps delivery. The Caesarian delivery for the first baby was 14.1%, which gradually decreased in subsequent deliveries.

Most of the deliveries, whether normal or Caesarean, were conducted by the trainee doctors (43.6%) and Medical Officers (25.7%) (table 2). Professors and Assistant Professors performed less than 1%. The normal or Caesarean deliveries were assisted mostly by trainee doctors (54.4%), interns (19.0%) and nurses (15.8%); and very few by Medical Officers (8.3%) and Assistant Registrars (2.1%). The neonatal death

was very high ranging from 7.3% at first delivery to 16.1% at the fourth one (table not shown).

## Discussion

The study reported the prevalence of different types of deliveries in a large referral hospital. This study also addressed the sites (home vs. hospital) of delivery and their outcomes. However, the study had its limitations. It did not compare between the outcomes of the deliveries between home and hospital. The study also did not compare the neonatal morbidity and mortality between normal and Caesarean delivery. Nor were there comparisons of outcomes between the delivery conducted by expert and non-expert clinicians.

Despite all these limitations, the study did reveal a high rate of Caesarean delivery – even higher than many advanced countries.<sup>17,18</sup> This higher rate appears to be abnormal and the exact cause is also difficult to explain. One possible cause is, the cases were referred to this hospital with fetal or maternal life threatening conditions leading to no other alternative but to undertake a Caesarean delivery. Or, it may so happen that the trainee doctors are more enthusiastic to take a quick decision for operation rather than wait for a normal vaginal delivery.

**Table-1:** *Obstetric histories regarding types, sites and outcomes of deliveries (n=2714)*

Delivery order	Types of delivery		Sites of delivery		Delivery outcome	
	Normal	Caesarean	Home	Hospital	Alive	Dead
First	165 (85.9)	27 (14.1)	123 (64.1)	69 (35.9)	178 (92.7)	14 (7.3)
Second	100 (86.2)	16 (13.8)	88 (75.9)	28 (24.1)	103 (88.8)	13 (11.2)
Third	53 (91.4)	5 (8.6)	47 (81.0)	11 (19.0)	55 (94.8)	3 (5.2)
Fourth	28 (90.3)	3 (9.7)	22 (71.0)	9 (29.0)	26 (83.9)	5 (16.1)

Percentages are given in parenthesis

**Table-2:** *Normal or Caesarean deliveries performed by different categories of doctors or nurses*

Deliveries performed by	n	%	Deliveries assisted by	n	%
Professor	1	0.2	Registrar	2	0.4
Assistant Professor	3	0.6	Assistant Registrar	11	2.1
Registrar	14	2.8	Medical Officer	44	8.3
Assistant Registrar	93	18.5	Trainee doctor (PG)	286	54.4
Medical Officer	129	25.7	Intern doctor	100	19.0
Trainee doctor (PG)	219	43.6	Nurse	83	15.8
Intern doctor	41	8.2			
Nurse	2	0.4			
<b>Total</b>	<b>502</b>	<b>100.0</b>	<b>Total</b>	<b>526</b>	<b>100.0</b>

The striking observations of this study are the higher rates of neonatal deaths ranging from 7.3% in the first delivery to 16.1% in the fourth order delivery. This invites the attention of the health personnel to look into it to explore the ways and means to prevent such a high neonatal mortality. It was interesting to note that involvement of senior staff was very low. Less than one percent expert obstetricians conducted delivery in this referral hospital. This finding may need further study for confirmation and appropriate measures taken.

### Conclusion

It may be concluded that the rate of Caesarean delivery is much higher than that observed in many developed countries. The home deliveries still remain high. The trainee or junior doctors were found to conduct most of the deliveries, be it normal or Caesarean. Further study may be undertaken to confirm these findings and take necessary measures to prevent neonatal deaths.

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