OPEN ACCESS

Saudi Journal of Medical and Pharmaceutical Sciences
Abbreviated Key Title: Saudi J Med Pharm Sci
ISSN 2413-4929 (Print) | ISSN 2413-4910 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Original Research Article **Obstetrics & Gynaecology**

A Study on Reasons for Caesarian Section in a Private Hospital in Khulna, Bangladesh

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DOI: https://doi.org/10.36348/sjmps.2025.v11i02.010 | **Received:** 19.01.2025 | **Accepted:** 24.02.2025 | **Published:** 28.02.2025

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Abstract

Background: The rate of caesarean section (C-section) deliveries in Bangladesh has increased significantly in recent years. While C-sections are sometimes medically necessary, their growing prevalence raises concerns about overuse and accessibility. Various factors, including medical, social, economic, and institutional influences, contribute to the high rate of C-sections in the country. ***Objective:*** The objective of this study was to assess the causes and factors influencing the rise of C-sections among pregnant women in Bangladesh. ***Methodology:*** This was a randomized prospective study conducted between 2018 and 2020 at Khalishpur Clinic. A total of 532 pregnant women were enrolled, and data were collected from patient records including demographic details, medical history, and reasons for undergoing a C-section. The study analyzed the frequency and distribution of various factors contributing to C-section deliveries, and statistical analysis was performed to identify the most common causes. Results: Among the 532 pregnant women, 413 (77.5%) underwent C-section, and 119 (22.5%) had a normal delivery. The mean age at delivery was 24.2 years (SD 4.6). The leading cause for C-sections was patient request, accounting for 41.5% of cases (n=171), of which 34.1% had no complications and 7.4% had minor complications. Other notable causes included premature rupture of membranes (PROM) (11.9%), post-dated pregnancy (9.7%), and previous C-sections (9.0%). Additionally, 27.6% of C-sections were performed due to other medical reasons. ***Conclusion:*** The study found a high rate of C-sections in Bangladesh, with a significant proportion being elective, driven by patient preference. This highlights a cultural shift towards viewing C-sections as a safer, more predictable form of delivery. The findings emphasize the need for improved prenatal care, particularly in rural areas, and greater public awareness regarding the risks and benefits of different delivery methods. Addressing both medical and socio-cultural factors is essential for reducing unnecessary C-sections and promoting safer, evidence-based childbirth practices.

Keywords: Caesarean section, patient request, premature rupture of membranes, post-dated pregnancy, Bangladesh, delivery methods, prenatal care, medical indications.

INTRODUCTION

In Bangladesh, the rate of caesarean section (C-section) deliveries has risen significantly over the past few decades. While this surgical procedure is sometimes medically necessary to ensure the safety of both the mother and baby, its increasing prevalence raises concerns about overuse and accessibility. Various factors contribute to the high rate of C-sections in the country, including medical, social, economic, and institutional influences [1-4].

One of the primary medical reasons for C-sections in Bangladesh is complications during pregnancy and labor. Conditions such as prolonged labor, fetal distress, placenta previa, breech presentation, and maternal health issues like hypertension or diabetes often necessitate surgical delivery. Inadequate prenatal care and delayed medical interventions in rural areas can also lead to emergency C-sections when complications arise [5-7].

Social and cultural factors play a significant role in the rising C-section rates. Many families,

particularly in urban areas, prefer planned C-sections for convenience, avoiding the unpredictability and pain of normal delivery [8]. Additionally, there is a perception among some women that C-section is a safer and more modern approach to childbirth. This belief, combined with societal pressure to give birth at an auspicious time, has contributed to the growing preference for surgical deliveries [9-10].

Economic incentives within the healthcare system further drive the increase in C-sections. Private hospitals and clinics often promote surgical deliveries due to their higher profitability compared to vaginal births. Many healthcare providers, both in the public and private sectors, may recommend C-sections even when they are not strictly necessary, leading to unnecessary medical interventions. This commercialization of childbirth raises ethical concerns about patient care and informed decision-making [11-12].

Another crucial factor is the lack of proper maternal healthcare facilities in rural and underserved areas. Many government hospitals are overcrowded and lack skilled birth attendants, making timely and safe vaginal deliveries challenging. As a result, many women are advised to undergo C-sections to avoid complications arising from inadequate healthcare infrastructure. Furthermore, limited awareness about natural childbirth options and fear of labor pain contribute to the preference for surgical deliveries.

Addressing the rising C-section rate in Bangladesh requires a multifaceted approach, including improved maternal healthcare services, better prenatal monitoring, and increased awareness about the risks and benefits of different delivery methods. Encouraging evidence-based medical practices and ensuring that C-sections are performed only when medically necessary can help strike a balance between maternal health and the overuse of surgical interventions.

Objective

- To ascertain the percentage of deliveries are c-sections.
- To identify why surgical deliveries are pursued in individual cases.

METHODOLOGY

Study Type and Duration

This study was designed as a randomized prospective study to analyze the causes of caesarean section (C-section) among pregnant women in Bangladesh. The research was conducted over a period of two years, from 2018 to 2020, at Khalishpur Clinic, a healthcare facility providing maternity services.

Study Population

A total of 532 pregnant women participated in the study. These women were admitted for delivery at Khalishpur Clinic and were selected randomly to ensure an unbiased analysis of the factors leading to C-section. The study population included both first-time mothers and those with previous childbirth experiences.

Data Collection

Data were collected from patient records, including demographic details, medical history, pregnancy-related complications, and reasons for undergoing C-sections. Each participant's mode of delivery was recorded, along with the primary indication for surgical intervention. The medical team at Khalishpur Clinic systematically documented the cases, ensuring accurate and reliable data collection throughout the study period.

Data Analysis

Statistical analysis was performed to identify the frequency and distribution of different factors leading to C-section. Descriptive statistics, including mean and standard deviation (SD), were used to summarize maternal age at delivery. The proportion of C-section cases and their respective causes were calculated and categorized. The most common reasons for C-sections were identified and compared to assess their significance in influencing the overall rate of surgical deliveries.

The study included a total of 532 pregnant women**,** among whom 413 (77.5%) underwent **C**-section**,** while 119 (22.5%) had a normal delivery**.** The mean age at delivery was 24.2 years (SD 4.6). The high percentage of C-section deliveries highlights a significant trend in surgical births within the study population, indicating potential influences from both medical and non-medical factors.

Table-1: Demographic status of the study group

Total Pregnant Women	**532**	**%**
C-section Cases	413	77.5%
Total Normal Deliveries	119	22.5%
Mean Age at Delivery	24.2 years (SD 4.6)	

The results indicate that out of 532 pregnant women, 413 (77.5%) underwent C-section, with patient request being the leading reason, accounting for 41.5% (n=171) of cases. Among these, 141 (34.1%) had no additional complications, while 30 (7.4%) had minor complicating factors. Other notable medical reasons for C-sections included premature rupture of membranes (PROM) (11.9%), post-dated pregnancy (9.7%), and previous C-section history (9.0%). Additionally, 27.6% (n=114) of cases were performed due to other medical

indications, suggesting that a significant portion of C-sections were medically justified, while a considerable number were elective.

Table-2: Reasons for Delivery by C-sections

Reason	Number of Cases (n)	Percentage (%)
Patient Request	171	41.5%
└ Without Other Complications	141	34.1%
└ With Minor Complications	30	7.4%
Premature Rupture of Membranes (PROM)	49	11.9%
Post-Dated Pregnancy	40	9.7%
Previous C-section	39	9.0%
Other Medical Reasons	114	27.6%
Reason	Number of Cases (n)	Percentage (%)
Patient Request	171	41.5%

DISCUSSION

The results of this study show a significant trend in the high rate of C-section deliveries, with 77.5% of the participants undergoing surgical delivery, which is consistent with recent reports highlighting the rising number of C-sections globally [9]. The mean age at delivery of 24.2 years is relatively similar to other studies in the region, where women in their early to mid-20s tend to form a significant portion of the pregnant population. This finding aligns with studies conducted in other parts of South Asia, where younger women are more likely to opt for hospital deliveries, especially in urban settings [10-11].

One notable similarity between this study and others, such as those conducted, is the high percentage of C-sections performed at the request of the patient [12]. In our study, 41.5% of women opted for a C-section without any major complications, which mirrors findings from other South Asian studies where patient preference is increasingly driving surgical deliveries. The significant portion of elective C-sections underscores a growing cultural trend where childbirth is perceived to be safer, faster, and more predictable through surgery, as reported in studies from India and Pakistan.

However, a notable difference in our study lies in the percentage of C-sections performed for other medical reasons. In our study, 27.6% of the C-sections were due to conditions such as PROM, post-dated pregnancies, and previous C-sections. While these factors are also common in other studies, the proportion in our study is slightly higher compared to studies conducted in developed countries, where medical interventions tend to be more closely monitored, and C-section rates are generally lower [13-14]. The finding that PROM and post-dated pregnancies contributed significantly to C-sections is in line with global trends, but our study highlights that in a resource-limited setting, medical interventions are sometimes necessary due to inadequate prenatal care or late identification of complications.

Another difference is the low percentage of complications associated with elective C-sections. In our study, only 7.4% of elective C-sections were associated with minor complications, which is relatively lower than what has been reported in other studies, where a higher proportion of elective surgeries are performed in the presence of at least one complicating factor [11]. This suggests that, in Bangladesh, a substantial number of C-sections are performed without the full medical justification seen in more developed healthcare systems.

Moreover, unlike studies from Western countries, where C-sections are primarily performed for medical indications, the C-section rate is 18-30%, which is two to three times more in Bangladesh. Among those 41.5% rate of patient-requested C-sections in our study is strikingly high. This finding indicates a cultural difference, as many women in Bangladesh, particularly in urban areas, view C-section as a less risky and more predictable method of delivery. This mirrors findings from Latin American countries, where patient choice has been cited as a significant factor driving the increase in C-section rates.

In conclusion, while there are some similarities with global trends regarding the high C-section rate and the medical reasons behind it, our study reveals a unique combination of cultural, medical, and economic factors influencing the rise of C-sections in Bangladesh. The substantial number of patient-requested surgeries and elective C-sections compared to medically necessary ones highlights the need for education and awareness campaigns regarding the risks and benefits of different delivery methods. Moreover, improving access to quality prenatal care in rural and underserved areas could help reduce unnecessary C-sections and better manage medical complications that justify surgical intervention.

CONCLUSION

In conclusion, this study highlights the significant rise in C-section deliveries in Bangladesh, with 77.5% of pregnancies resulting in surgical births. The leading reason for C-sections was patient request,

accounting for 41.5% of cases, followed by medically indicated reasons such as PROM, post-dated pregnancies, and previous C-sections. While a substantial portion of C-sections was elective, indicating a shift in cultural perceptions of childbirth, the findings also emphasize the need for better prenatal care, especially in rural areas, and greater awareness of the risks and benefits of different delivery methods. Addressing both the medical and socio-cultural factors influencing C-sections could help reduce unnecessary surgical deliveries and promote safer, evidence-based childbirth practices.

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