





# Examining the causes and patterns of intended cesarean sections: A cross-sectional study in Dhaka, Bangladesh

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## ABSTRACT

**Purpose:** Cesarean section is an alternative method of childbirth that is generally applied when vaginal delivery encounters any unusual complications. However, nowadays, these types of deliveries, whether intended or unintended, have been increasing at an alarming rate in various countries worldwide. As such, the main purpose of this study was to investigate the causes and patterns of cesarean deliveries in Bangladesh.

**Design/Methodology/Approach:** A mixed approach was employed to collect diversified data from the respondents. Primary data were collected for the survey through face-to-face interviews with 100 sampled respondents using snowball sampling. Additionally, four key informants were interviewed in-depth for a better understanding of the phenomenon under study.

**Findings:** The study shows that despite there being no unavoidable complications in vaginal delivery, customers chose CS delivery for specific reasons such as convenience, fear of labor pain, concerns about their children's birthdays, suggestions from healthcare providers, and motivations from other familiar individuals. The study also indicates a significant difference between public and private hospitals regarding customer satisfaction with various healthcare services, including childbirth. Private hospitals are more likely to provide quality healthcare services, while public hospitals tend to offer healthcare services at lower prices.

**Conclusion:** The study suggests that the relevant government authorities should undertake proper steps to reduce the increasing number of CS deliveries in Bangladesh. Researchers, policymakers, and non-governmental organizations should also come forward to raise awareness among the public by initiating various programs, campaigns, seminars, and conferences.

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**Keywords:** Cesarean section, Childbirth, Health care, Health complications, Labor pain, Vaginal delivery.

## 1. INTRODUCTION

Cesarean section was introduced as an alternative method of childbirth when vaginal delivery encounters complications. This surgical intervention in childbirth has been a significant advancement in medical science because the cesarean delivery system prevents birth complications and ensures safety for both the mother and baby (Hasan, Alam, & Hossain, 2019). Although cesarean section (CS) delivery is used as an alternative to vaginal delivery when vaginal delivery is impossible or faces complications, it causes many long-term complications for both the mother and her baby. The CS delivery system was introduced to reduce deaths from puerperal causes. Since CS delivery has some long-term negative consequences for both the mother and the baby, it is discouraged by physicians when vaginal delivery faces no complications.

In 1985, the World Health Organization (WHO) stated that the rate of cesarean section deliveries should not exceed 10-15% for any region (WHO, 1985). Nowadays, cesarean section deliveries continue to rise globally, accounting for more than 21% of all childbirths. By 2030, the cesarean section rate is projected to reach 29% if this trend continues (World Health Organization, 2021). Like other developing countries, the cesarean section delivery rate is rising alarmingly in Bangladesh. The Bangladesh Demographic and Health Survey (BDHS) conducted in 2017-2018 found

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that the cesarean section rate was 33%, whereas the Multiple Cluster Indicator Survey (MICS) conducted in 2019 reported the rate as 36%. The cesarean section delivery rate is much higher among educated and wealthy women (Islam, Alam, Bidisha, & Abdullah, 2021). Save the Children revealed that the number of cesarean operations has increased by 51% between 2016 and 2018. This data indicates that the number of unnecessary cesarean deliveries is increasing at a very alarming rate. Between 2004 and 2016, the cesarean delivery rate increased from 4% to 31% in Bangladesh. The cesarean section rate is much higher in private hospitals and clinics than in public hospitals. About 80% of all births in private hospitals and clinics are now cesarean sections (Save the Children, 2019). Recently, Bangladesh has achieved incredible success in the health sector, especially in reducing maternal and child mortality rates. However, it has been observed that unnecessary cesarean sections are gradually increasing among women in Bangladesh. Some mothers intentionally choose cesarean delivery without any complications (Ahmmed, Manik, & Hossain, 2021).

Why do a large number of women intentionally choose C-sections instead of vaginal delivery? Various causes need to be identified appropriately through proper research. Sometimes, people receive misinformation and misleading advice from healthcare providers, including doctors, which motivates them to choose C-sections instead of vaginal delivery. Additionally, the birthday of the child can be very special to some parents, especially educated parents in urban areas. Therefore, they may choose a particular date for the cesarean section before the actual date suggested by the doctors. Some mothers opt for C-section delivery due to the fear of labor pain. All of these causes and patterns of intended C-section delivery need to be explored appropriately through proper scientific research.

The present study aims to find answers to some relevant research questions: Why are intended cesarean sections on the rise in Dhaka, Bangladesh? What motivates and inspires people to choose C-section delivery instead of vaginal delivery? What are the patterns of intended cesarean sections among women, especially among educated women in Dhaka city?

## 2. OBJECTIVES

- To identify the major causes of intended cesarean sections in Dhaka city.
- To investigate the patterns of intended cesarean sections among women, particularly among educated and wealthy women in Dhaka city.
- To explore the role of healthcare providers in choosing between C-sections and vaginal deliveries.
- To identify the differences between the services of public health care providers and those of private health care providers.

## 3. METHODOLOGY

The study site encompasses Dhaka, the capital city of Bangladesh. Both qualitative and quantitative methods were employed in this study to collect diverse data from the respondents. As a quantitative method, a questionnaire survey was conducted to collect data from mothers who have experience with one or more CS deliveries in the last five years. A total of 100 respondents were sampled based on a snowball sampling procedure. Since the researcher did not have any sampling frame available while undertaking the study, the snowball sampling method was followed as a non-probability sampling due to the convenience for the researcher (Muniruzzaman & Siddiky, 2021). Of 100 respondents, 50 were selected who had completed their CS delivery in public hospitals, and the other 50 were selected who had completed their CS delivery in private hospitals to compare private and public healthcare providers. A structured questionnaire was prepared for collecting data from the respondents, where most of the questions were 5-point Likert type, along with some other relevant socio-demographic questions.

After collecting primary data, it was edited and compiled very carefully. Descriptive statistics, including frequency distributions, percentages, and graphical presentations, were used to describe and summarize the data. SPSS software was used to analyze the data, where the mean, median, and standard deviation were calculated and presented. Because of the nature of the data, the Mann-Whitney U test was used to determine whether there is a significant difference between public and private hospitals in terms of their customers' satisfaction with various healthcare services. In line with its purpose, the study conducted four key informant interviews (KIIs) purposively chosen from healthcare providers to gain a deeper understanding of the causes, patterns, and related aspects of CS delivery. Of these, two were selected from public hospitals and the other two from private hospitals. The excerpts were thoroughly reviewed to identify the causes, patterns, and related aspects of CS delivery, leading to the

identification of a set of common concerns. Secondary data were collected from various sources, including journal articles, books, published reports, conference proceedings, newspapers, websites, etc., to supplement the primary data.

#### 4. FINDINGS

To address different aspects of the intended cesarean section in Dhaka city, this section presents various causes and patterns that have emerged over recent years, along with some other relevant information. By analyzing data from comprehensive surveys and key informant interviews, we aimed to identify the recent trends and key factors of intended cesarean sections, with major comparisons between public and private healthcare providers. This section also aims to uncover individuals' perceptions, interests, and motivations behind their preference for cesarean sections over vaginal delivery. Key areas of focus include the socio-demographic information of the respondents, their perceptions, their satisfaction, common patterns of cesarean section delivery, and the comparisons between public and private hospitals. Understanding these factors is crucial to promoting better health outcomes for mothers and babies, helping them make informed and suitable decisions about delivery options.

**Table 1.** Demographic information of the respondents.

Variables	Categories	Frequency	Percent (%)
Age	18-27	22	22.0
	28-37	58	58.0
	38-47	17	17.0
	48-57	3	3.0
	Total	100	100.0
Educational qualifications	Primary	18	18.0
	Secondary	17	17.0
	Higher secondary	22	22.0
	Bachelor	24	24.0
	Masters	19	19.0
	Total	100	100.0
Occupation	Housewife	59	59.0
	Public service	15	15.0
	Private job	26	26.0
	Total	100	100.0
Social class	Lower class	7	7.0
	Lower middle class	22	22.0
	Middle class	33	33.0
	Upper middle class	27	27.0
	Upper class	11	11.0
	Total	100	100.0

As shown in Table 1, the majority (58%) of the respondents were from the age group of 28-37, followed by 18-27 (22%), 38-47 (17%), and 48-57 (3%). In terms of educational qualifications, it was found that a majority (24%) of the respondents have a bachelor's degree, followed by those with a higher secondary degree (22%), master's degree (19%), primary level (18%), and secondary level (17%). From the table, it is also evident that most of the respondents (59%) were housewives, whereas 26% were engaged in private jobs, followed by 15% who were in public services. In terms of social class, the majority (33%) of the respondents were drawn from the middle class, followed by the upper-middle class (27%), lower middle class (22%), upper class (11%), and lower class (7%).

**Table 2.** Respondent's perception of CS delivery.

No.	Measurement instrument/Indicators	Mean	Median	SD	Rating
1	To what extent do you feel regret about the decision to choose CS delivery being wrong?	3.41	4.00	1.303	Very
2	To what extent do you believe healthcare providers inspire or advise patients to choose cesarean section delivery in Bangladesh?	3.39	4.00	0.777	Very
3	To what extent do you think misleading information is responsible for increased cesarean section delivery in Bangladesh?	2.98	3.00	0.829	Moderately
4	To what extent do you think cesarean section delivery is rising in Bangladesh?	4.38	5.00	0.722	Very much
5	To what extent do you think the intended cesarean section delivery is rising in Bangladesh?	3.58	4.00	0.768	Very
6	To what extent do you think cesarean section delivery is becoming a common trend or fashion in Bangladesh?	3.40	4.00	0.791	Very

**Note:** 1=Not at all, 2=Slightly, 3=Moderately, 4=Very, 5=Very much.

Table 2 presents the respondents' views on CS delivery. The respondents were asked about their feelings of regret regarding their decision to choose CS delivery. A median value of 4 indicates that they felt very regretful about their decision to choose CS delivery. The respondents also expressed that healthcare providers in Bangladesh inspire or advise patients to choose CS delivery to a very great extent (median = 4). Following the median value of 3, the respondents believed that misleading information is moderately responsible for increasing CS delivery in Bangladesh. Accordingly, the median value of 5 indicates a very high rise in CS delivery in Bangladesh. The respondents also thought that intended CS delivery is rising in Bangladesh to a very great extent (median = 4). It was found that CS delivery is becoming a very common trend or fashion in Bangladesh since the median value is 4.

**Table 3.** Type of hospital by reason for choosing a cesarean section delivery intentionally.

Reason to choose CS delivery intentionally							
Type of hospital	Convenience	Fear of labor pain	Matching birthday with parents	Matching birthday with siblings	To have a birthday on a special day	Others	Total
Public	31	17	0	0	0	2	50
Private	8	12	4	7	13	6	50
Total	39	29	4	7	13	8	100

Table 3 shows that 39 participants had intentionally chosen CS delivery for their convenience, among whom 31 had done it in public hospitals while 8 had done it in private hospitals. Fear of labor pain forced 29 participants to undergo CS delivery, of whom 17 had done it in public hospitals and 12 had done it in private hospitals. Accordingly, 4 participants underwent CS delivery to match the child's birthday with the parents', 7 had done it to match the child's birthday with siblings, and 13 of them went through it to have their children's birthday on a special day. All of these 24 CS deliveries were completed in private hospitals. 8 of the participants were reported to have decided on CS delivery for some other reasons, among whom 2 completed it in public hospitals and the other 6 were done in private hospitals.

**Table 4.** Hypothesis testing results summary.

No.	Research hypotheses (H <sub>a</sub> )	Type of hospital	Mean rank	Mann-Whitney U	Alpha-value	p-value
1	Satisfaction with the service of healthcare providers varies significantly based on the type of hospital*	Public	34.00	425.00	0.01	0.000
		Private	67.00			
2	Satisfaction with the treatment facilities provided by healthcare providers varies significantly depending on the type of hospital*	Public	36.21	535.500	0.01	0.000
		Private	64.79			
3	Satisfaction with the environment of healthcare providers varies significantly based on the type of hospital*	Public	27.54	102.000	0.01	0.000
		Private	73.56			
4	Satisfaction with the behavior of healthcare providers varies significantly based on the type of hospital**	Public	44.13	931.500	0.05	0.018
		Private	66.87			
5	Satisfaction with the treatment costs of healthcare services varies significantly depending on the type of hospital*	Public	61.61	694.500	0.01	0.000
		Private	39.39			

Note: \*statistically significant at 99% confidence level; \*\*statistically significant at 95% confidence level.

Table 4 shows that the empirical evidence supported all the research hypotheses, ranging from a 95% to a 99% confidence level, involving H1: satisfaction with the service of healthcare providers varies significantly depending on the type of hospital ( $p < .001$ ), H2: satisfaction with the treatment facilities provided by healthcare providers varies significantly depending on the type of hospital ( $p < .001$ ), H3: satisfaction with the environment of healthcare providers varies significantly depending on the type of hospital ( $p < .001$ ), H4: satisfaction with the behavior of healthcare providers varies significantly depending on the type of hospital ( $p < .005$ ), and H5: satisfaction with the treatment cost of healthcare services varies significantly depending on the type of hospital ( $p < .001$ ). Hence, the summary of the hypotheses results reveals that there is a significant difference between public and private hospitals in terms of customers' satisfaction with various healthcare services.

**Table 5.** Common patterns of CS delivery in Bangladesh.

No.	Category	Frequency	Percentage (%)
1	Was your first baby born through a cesarean section delivery?		
	Yes	90	90.0
	No	10	10.0
Total		100	100.0
2	Did you go through the CS delivery a few days earlier than the due date?		
	Yes	49	49.0
	No	51	51.0
Total		100	100.0
3	Did someone inspire or motivate you to choose CS delivery?		
	Yes	31	31.0
	No	69	69.0
Total		100	100.0

Table 5 illustrates the common pattern of CS delivery in Bangladesh. It was found that 90% of the respondents had their first baby through CS delivery, while 10% had their first baby through vaginal delivery. Almost half (49%) of the respondents underwent CS delivery a few days before the due date, while the remaining respondents (51%) disagreed. The majority (69%) of the respondents were not inspired or motivated by anyone to choose CS delivery, while 31% were motivated by someone to opt for CS delivery.

**Table 6.** Some relevant aspects of conducting CS delivery.

No.	Category	Frequency	Percentage (%)
1	Did you have any complications in vaginal delivery?		
	Yes	22	22.0
	Don't know	40	40.0
	No	38	38.0
Total		100	100.0
2	Did the doctor advise you to choose CS delivery despite being no complications in vaginal delivery?		
	Yes	55	55.0
	No	45	45.0
Total		100	100.0
3	To what extent do you feel health complications after the CS delivery?		
	Not at all	7	7.0
	Slightly	27	27.0
	Moderately	43	43.0
	Very	23	23.0
Total		100	100.0

Table 6 presents some relevant aspects of conducting CS delivery. In the case of any complications in vaginal delivery, 40% of the respondents didn't know about it, followed by 38% who didn't experience any complications in vaginal delivery, and 22% had suffered complications. 55% of the respondents reported being advised by the doctor to choose CS delivery despite having no complications in vaginal delivery, while the remaining 45% received no advice from the doctor to choose CS delivery. After the CS delivery, 43% of the respondents reported having moderate complications, followed by those who experienced slight problems (27%), and 23% faced complications to a very great extent. A percentage of the respondents were found to have faced no complications at all after the CS delivery.

**Table 7.** Views of the key informants regarding the causes, patterns, and other related aspects of CS delivery.

No	Occupational position	Views of the key informants	Specific causes and patterns of CS delivery
1	Doctor (Public hospital)	"This is the largest public hospital in Bangladesh and we have to deal with a large number of delivery patients every day. Most of the patients are from the middle class and lower class. Since their education level is usually lower, they don't have a proper idea about vaginal delivery and CS delivery. But still, many of them prefer CS delivery due to the convenience and fear of labor pain. We don't suggest CS delivery if there are no complications in vaginal delivery, although there are some unavoidable circumstances when CS delivery is a must."	-Many patients assume that cesarean section is a more convenient way of delivery. -Many patients choose CS delivery due to the fear of labor pain. -Most of the patients in public hospitals are from lower-income and lower-education groups.
2	Charge nurse (Public hospital)	"Most of the patients choose this hospital due to the low treatment cost whether CS delivery or vaginal delivery. We observe many patients choosing CS delivery despite being no complications in vaginal delivery, although a few of them request us for vaginal delivery. Most of the cases CS delivery can be avoided but the patients as well as the hospital authority are not so serious about it."	-Low cost of delivery is one of the mentionable reasons for choosing public hospitals. -Many patients choose CS delivery despite being no complexities in vaginal delivery. -The authority is not serious about reducing the rate of CS delivery
3	Doctor (Private hospital)	"There is a huge difference between the cost of CS delivery and vaginal delivery in this hospital and as far as I am concerned no	-Despite being much higher cost the patients prefer CS delivery for some specific reasons. These are:

No	Occupational position	Views of the key informants	Specific causes and patterns of CS delivery
		doctor will suggest CS delivery until the patient faces any complications in vaginal delivery. But still, the number of CS delivery is much higher than vaginal delivery in this hospital and in most cases, the patients or their guardians prefer CS delivery instead of vaginal delivery. The patients usually mention some reasons for selecting CS delivery such as convenience, fear of labor pain, and even birthday issues of their babies.”	-They assume that cesarean section is a more convenient way of delivery. -Many patients choose CS delivery due to the fear of labor pain. -Some want to have the birthdays of their children on a specific day.
3	Charge nurse (Private hospital)	“I have been working here since 2010. It is undeniable that most of the deliveries are cesarean sections in this hospital. There is a separate package for CS delivery and vaginal delivery and the cost of CS delivery is much higher than vaginal delivery since it is a surgical way of childbirth. Sometimes the doctors suggest CS delivery, sometimes they ask patients to choose any one. I witness many patients choosing CS delivery by themselves despite being no complications in vaginal delivery. Many patients want to give birth on special days such as a particular day of the year. On the first day of the year, we have to remain busy to deal with many CS patients. Moreover, some parents want to match the birthdays of their children with siblings and parents.”	-Despite being much higher cost the patients prefer CS delivery. -Sometimes the patients want to give birth on specific days. -The number of CS deliveries is much higher on some special days of the year than on other days.

Table 7 provides insights from healthcare professionals regarding the causes, patterns, and other aspects related to cesarean section (CS) delivery in both public and private hospitals in Bangladesh.

The majority of patients in public hospitals belong to the lower class (Dash & Mohanty, 2019). A doctor from the largest public hospital in Bangladesh has identified the lack of proper knowledge and education about vaginal and cesarean delivery, as well as patients' convenience and fear of labor pain, as the main reasons for preferring cesarean delivery over vaginal delivery. Cost-effective treatment in public hospitals attracts many patients (Al-Balushi & Khan, 2017). A charge nurse has expressed concern about patients who often deliberately choose cesarean section deliveries, and the hospital authorities do not take serious measures to prevent this. Some patients want to have children on specific dates, which leads them to avoid relying on vaginal normal delivery in the private hospital, despite the significant difference in cost (Negrini, da Silva Ferreira, & Guimarães, 2021). Apart from this, the reasons for preferring cesarean section (CS) delivery over vaginal delivery are similar in public hospitals as reported by a doctor from a private hospital. Matching birthdays with parents and having birthdays on a special date of the year are identified as the main reasons patients choose CS delivery over vaginal delivery, according to a charge nurse at a private hospital.

Some common concerns have been identified from the table, as discussed below:

*Deliberate Choice to Avoid Labor Pain: CS delivery is recommended by doctors only if there are any complications in vaginal delivery, but many patients opt to choose CS delivery for their own reasons. Fear of labor pain during vaginal delivery is a major concern for patients, which many do not want to endure. This occurs in both public and private hospitals.*

*Lack of Proper Knowledge: Several patients lack a sufficient understanding of the process, complications, and consequences of cesarean section (CS) delivery. Nevertheless, they opt for CS delivery for their convenience. This occurs primarily in public hospitals, where lower-class individuals with low levels of educational backgrounds seek mainly cost-effective treatment (Dash & Mohanty, 2019).*



*Manipulating Birthdays for Personal Reasons: Matching birthdays with parents or other siblings, having the child's birthday on special dates like 12.12.2012, the first day of the year, the last day of the year, or any specific occasions are the reasons why patients prefer to have a cesarean delivery sometimes earlier than the normal delivery date. There is a significant gap in terms of expenses between both options of delivery, but patients in private hospitals pay little attention to that.*

*Lack of Concern from the Authority: The hospital authority shows no seriousness regarding the patient's deliberate choice of cesarean section (CS) delivery despite the absence of complications in vaginal deliveries. In the case of private hospitals, there are different cost packages for the two delivery methods, with CS delivery being significantly more expensive. This is one of the reasons for the lack of attention from private hospital authorities, as most private hospitals are profit-oriented (Jeurissen, 2010).*

## 5. DISCUSSION

Cesarean section deliveries were invented as a lifesaving method of childbirth used when vaginal delivery is impossible due to life-threatening complications. However, nowadays, unnecessary and intended cesarean section deliveries are gradually increasing in both developed and developing countries. Intended cesarean sections are rising at a very alarming rate in Bangladesh. Cesarean section delivery should be utilized when normal natural delivery is impossible due to some life-threatening complexities, but healthcare providers in Bangladesh motivate women to choose cesarean section delivery before assessing the probability of normal delivery. Moreover, some women intentionally choose cesarean section delivery without taking any chance of vaginal delivery and request doctors to conduct cesarean section delivery before the due date. This study has identified specific causes of intended cesarean section delivery among women, such as many assuming that cesarean section delivery is a convenient method of childbirth; most choosing cesarean section delivery due to the fear of labor pain; many, particularly women from wealthy families, wanting to give birth on a specific day through cesarean section delivery; and some wanting to match the birthdays of their children with their parents and siblings. Furthermore, healthcare providers suggest that patients choose cesarean section delivery. Sometimes they provide misleading information about childbirth, leading patients to opt for cesarean section delivery instead of vaginal delivery. The study has also revealed many other aspects of the increasing cesarean section delivery rate in Bangladesh.

The findings of the study have been supported by several recent studies. A recent study identified that misinformation regarding childbirth is prevalent among women and their communities. Sometimes, health care providers provide misinformation, which leads women to choose cesarean section delivery rather than vaginal delivery. (Doraiswamy et al., 2021). Another recent study finds that educated women from educated households, women with prosperous economic conditions, and women with regular access to media prefer CS delivery in Bangladesh (Afiaz, Arusha, Ananna, Kabir, & Biswas, 2021). Some other similar recent studies revealed different aspects of the CS delivery system in Bangladesh that are aligned with this study (Begum et al., 2018; Hasan et al., 2019; Mia et al., 2019; Parvej, Tabassum, & Aktar, 2021; Rana, Hossain, Aktar, Hossain, & Alam, 2021).

Two major factors contributing to the high rate of C-sections in Bangladesh are the convenience factor and the fear of labor pain, both of which may be considered unnecessary and avoidable. A large number of educated and wealthy mothers wish to avoid labor pain and believe that C-section delivery is more convenient than vaginal delivery (Islam, Alam, Bidisha, & Abdullah, 2019). Moreover, the cost of unnecessary cesarean section (CS) delivery creates an economic burden for most families. Despite this economic burden, a large number of women give birth by cesarean section, with the urban CS delivery rate being much higher than in rural areas (Haider et al., 2018). Although cesarean section delivery plays a pivotal role in reducing maternal and child mortality, unnecessary cesarean deliveries have adverse health effects for both the mother and the baby (Ahmed, Islam, Jahan, & Shaon, 2023). The CS delivery rate is higher among women in urban areas, who have relatively higher socioeconomic status and higher educational attainment (Khan, Islam, Shariff, Alam, & Rahman, 2017). While there is some available literature regarding the high rate of CS delivery and unnecessary CS delivery in Bangladesh, no proper scientific investigation has been conducted yet regarding intended CS delivery in Bangladesh. Since the number of intended cesarean section deliveries is rising, the present study aims to identify the causes, patterns, and various other related aspects of intended cesarean section delivery in Bangladesh through empirical research.



## 6. CONCLUSION

The study was intended to explore the causes and patterns of intended cesarean section (CS) delivery in Dhaka, Bangladesh. As such, the study has come up with findings regarding why the women of Dhaka city intentionally choose CS delivery instead of vaginal delivery and to what extent. Moreover, the study explored the role of both public and private healthcare providers in choosing CS delivery or vaginal delivery. Therefore, the study could support the concerned authorities and policymakers in formulating policy in this regard.

Based on empirical evidence, it is argued from this study that both the patients and the healthcare providers usually prefer CS delivery instead of vaginal delivery. Fear of labor pain is the major cause of intended CS delivery in both public and private hospitals. Sometimes, people have the perception that CS delivery is the most convenient way of childbirth, and healthcare providers often promote this tendency among the patients with many other misleading information. Some women from the upper class prefer CS delivery due to the birthday issues of their children. Moreover, both the patients and the healthcare providers are not very serious about avoiding CS delivery and promoting or applying vaginal delivery. Widespread programs, campaigns, research, conferences, seminars, and some policy measures need to be taken by different concerned authorities to reduce the tendency of intended CS delivery in Bangladesh. The study could help several professional groups, including social scientists, psychiatrists, psychologists, physicians, and policymakers, to examine the causes and multidimensional patterns of intended cesarean section among the Dhaka city dwellers. Moreover, the study could assist researchers in conducting more research regarding these issues in rural areas and other different parts of the country.

## FUNDING

This study received no specific financial support.

## INSTITUTIONAL REVIEW BOARD STATEMENT

The Ethical Committee of the Noakhali Science and Technology University, Bangladesh has granted approval for this study (Ref. No. NSTU/SCI/EC/2024/285).

## TRANSPARENCY

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

## COMPETING INTERESTS

The authors declare that they have no competing interests.

## AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

## ARTICLE HISTORY

Received: 20 December 2024/ Revised: 27 January 2025/ Accepted: 4 February 2025/ Published: 11 February 2025

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