

## Characteristics and Outcomes of Abortion Cases at a Tertiary Care Hospital in Bangladesh

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### Abstract

**Introduction:** Abortion is a critical public health issue, particularly in developing countries like Bangladesh, where access to safe abortion services is often limited. This study aimed to analyze the characteristics and outcomes of abortion cases in a tertiary-level hospital setting, providing insights into the demographic profile of patients, nature and type of abortions, treatment methods, and post-abortion complications. **Methods:** This cross-sectional observational study was conducted at the department of Obstetrics and Gynecology, Uttara Adhunik Medical College and Hospital, Dhaka, Bangladesh, from June 2022 to July 2023. A total of 100 patients were consecutively sampled based on specific inclusion and exclusion criteria. Data were collected through patient medical records and interviews, focusing on demographic information, details of the abortion, and subsequent outcomes. **Result:** The majority of patients were in the 26-30 age group (42%), with 58% being primigravida. Most abortions occurred in the early stages of pregnancy (<13 weeks, 75%). Incomplete abortions were the most common type (83%), and the majority of cases were spontaneous (84%). Surgical intervention (D&C) was the predominant treatment method (83%). While most patients (84%) did not experience complications, a minority faced significant health challenges, including shock (5%) and septicemia (3%). **Conclusion:** The study highlights a high incidence of incomplete abortions and a preference for surgical treatment in abortion cases at the tertiary hospital level in Bangladesh. These findings underscore the need for improved abortion care, enhanced patient education, and better access to comprehensive abortion services. The study's insights are crucial for informing policy and practice to improve reproductive health services and address the challenges of unsafe abortion practices in Bangladesh.

**Keywords:** Abortion, Spontaneous, Induced, Pregnancy.

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## INTRODUCTION

Abortion, as a critical aspect of reproductive health, remains a significant public health issue globally. It is a complex intersection of medical, socio-cultural, ethical, legal, religious, and moral dimensions. Globally, around 73 million induced abortions are estimated to occur each year, reflecting its prevalence and the critical need for accessible and safe abortion services [1, 2]. The issue of abortion is particularly pressing in developing

countries, where unsafe abortion practices contribute substantially to maternal morbidity and mortality, underscoring the urgency of addressing this health concern [3]. In Bangladesh, the context of abortion is shaped by a mix of legal restrictions and allowances. While abortion is legally restricted, it is permitted under specific circumstances, such as to save the life of the woman or to preserve her physical and mental health [4]. Despite these legal provisions, many women in

Bangladesh resort to unsafe abortion methods. This is often due to a lack of awareness, limited accessibility to safe services, and prevailing socio-cultural barriers [5, 6]. The high maternal mortality ratio in the country, with a significant proportion attributed to unsafe abortions, highlights the critical nature of this issue [7]. The healthcare system in Bangladesh, faces numerous challenges in managing abortion cases. These challenges include limited resources, inadequate training of healthcare providers, and the social stigma associated with abortion [8, 9]. Tertiary-level hospitals, particularly the departments of Obstetrics and Gynecology, often become critical points for women seeking abortion services. This makes them important areas for study, as they provide a unique perspective on the management and outcomes of abortion cases in a tertiary level. Existing literature on abortion in Bangladesh has primarily focused on urban and national-level data. These studies have explored various aspects, such as the prevalence of abortion, reasons for seeking abortion, and the nature of post-abortion care [10]. However, there is a noticeable gap in research specifically targeting the characteristics and outcomes of abortion cases at the tertiary hospital level. This gap is significant, considering the potential differences in healthcare access, quality of services, and patient demographics at this level compared to national or urban healthcare settings [11]. The rationale for this study is rooted in this identified gap. Understanding the characteristics and outcomes of abortion cases in such settings is essential for developing targeted interventions and policies. It can also aid in improving the quality of care and reducing the burden of unsafe abortion practices. The primary objective of this study is to analyze the demographic characteristics of women seeking abortions and the clinical outcomes of these cases in Dhaka.

## METHODS

This study was conducted as a cross-sectional observational study at the department of Obstetrics and Gynecology, in the Uttara Adhunik Medical College and Hospital, Dhaka, Bangladesh, over a one-year period, from June 2022 to July 2023. The methodology involved consecutive sampling, where all patients admitted during the study period and meeting predefined inclusion and exclusion criteria were considered for the study. This approach was chosen to ensure a comprehensive representation of the patient population. The final sample size comprised 100 patients. This number was based on the admissions fitting the study criteria within the one-year timeframe. Data collection was primarily through patient medical records, supplemented by interviews where necessary. The data encompassed demographic details, medical history, specifics of the pregnancy and abortion, and any subsequent complications or treatments. Ethical considerations were a priority, with the study receiving approval from the relevant institutional review board. Informed consent was obtained from all participants, and strict confidentiality

measures were implemented to protect patient information.

## RESULTS

**Table 1: Distribution of patients according to age (n=100)**

Age group	Number	Percentage
15-20	12	12
21-25	33	33
26-30	42	42
31-35	10	10
>35	3	3

The majority of the patients fell within the 26-30 age group, accounting for 42% of the total. This was followed by the 21-25 age group, which comprised 33% of the patients. Notably, a smaller proportion of the patients were in the 15-20 and 31-35 age groups, representing 12% and 10% respectively. Patients above 35 years were the least represented in the study, constituting only 3% of the total.

**Table 2: Distribution of patients according to parity (n=100)**

Parity	Number	Percentage
Primigravida	58	58
Multigravida	42	42

The majority, 58% of the patients, were primigravida, experiencing their first pregnancy. The remaining 42% were multigravida, indicating they had been pregnant at least once before.

**Table 3: Distribution of patients according to the duration of pregnancy (n=100)**

Duration in Weeks	Number	Percentage
<13 weeks	75	75
13-28 weeks	25	25

A significant majority, 75% of the patients, were in the early stages of pregnancy (less than 13 weeks). The remaining 25% were between 13 and 28 weeks of gestation.

**Table 4: Distribution of patients according to the type of abortion (n=100)**

Abortion Type	Number	Percentage
Incomplete	83	83
Complete	5	5
Missed	9	9
Septic	2	2
Inevitable	1	1

Table 4 categorizes the patients (n=100) based on the type of abortion experienced. The most common type was incomplete abortion, accounting for 83% of the cases. Complete abortions were relatively rare,

constituting only 5% of the cases. Missed abortions were reported in 9% of the patients, while septic and inevitable abortions were least common, comprising 2% and 1% of the cases, respectively.

**Table 5: Distribution of patients according to nature of abortion (n=100)**

Abortion Nature	Number	Percentage
Spontaneous	84	84
Induced	16	16

A significant majority, 84% of the cases, were spontaneous abortions. The remaining 16% were induced abortions.

**Table 6: Distribution of patients according to mode of treatment (n=100)**

Treatment Method	Number	Percentage
Surgical (D&C)	47	47
Medical	53	53

The majority of the patients, 53%, underwent medical treatment, while the remaining 47% received surgical treatment (Dilation and Curettage, D&C) for their abortion.

**Table 7: Distribution of patients according to complications (n=100)**

Complications	Number	Percentage
Shock	5	5
Septicemia	3	3
Incomplete D&C	8	8
No Complications	84	84

The majority of the patients, 84%, did not experience any complications. However, 5% of the patients suffered from shock, 3% from septicemia, and 8% had complications related to incomplete D&C. These findings highlight that while most patients did not experience complications, a notable minority faced significant health challenges post-abortion.

## DISCUSSION

The findings of this study offer valuable insights into the characteristics and outcomes of abortion cases at a tertiary-level hospital in Dhaka, Bangladesh. The age distribution of the patients, with the majority falling within the 26-30 age group (42%), followed by the 21-25 age group (33%), aligns with global trends where the highest abortion rates are often found among women in their twenties [12]. This is consistent with the findings of Rahman *et al.*, who reported a similar age distribution in their study on abortion in urban Bangladesh [10]. The lower representation of patients above 35 years in our study (3%) could be indicative of varying fertility patterns or contraceptive use among older women, as suggested by Singh *et al.*, [3]. The predominance of primigravida patients (58%) in our

study contrasts with global patterns, where abortion rates are typically higher among women who have had previous births [13,14]. This discrepancy might reflect cultural or societal factors unique to the Bangladesh context, as discussed by Hossain *et al.*, who noted the influence of marital and societal pressures on reproductive decisions in Bangladesh [6]. A significant majority of abortions occurred in the early stages of pregnancy (less than 13 weeks, 75%), which is consistent with global abortion trends and underscores the importance of early access to abortion services [1]. This early gestational age at the time of abortion could be linked to the increasing availability of early pregnancy detection methods and awareness, as noted by Ahmed *et al.*, [11]. The notably high incidence of incomplete abortions (83%) in this study, compared to lower rates in similar contexts, warrants a focused analysis. For instance, a study by Grimes *et al.*, reported significantly lower prevalence rates in comparable settings [15]. This discrepancy could be attributed to several factors specific to the healthcare environment in Bangladesh. Firstly, the quality of abortion care services is a critical factor. Incomplete abortions are often linked to inadequate procedural standards or lack of access to comprehensive abortion care [16]. This suggests a need for enhanced training of healthcare providers and improved availability of safe abortion methods in the hospitals of Bangladesh. Secondly, patient awareness about safe abortion practices plays a crucial role. In settings where socio-cultural barriers and stigma around abortion prevail, women may delay seeking care, increasing the risk of incomplete abortions [17]. This highlights the importance of public health initiatives focused on education and awareness to ensure timely access to abortion services. The nature of abortions being predominantly spontaneous (84%) in our study aligns with the findings from other low and middle-income countries, as reported by Ganatra *et al.*, [18]. The proportion of induced abortions (16%) is lower compared to global figures, possibly reflecting the legal restrictions and social stigma associated with induced abortions in Bangladesh, as discussed by Anwar *et al.*, [19]. The preference for medical treatment (53%) over surgical (D&C) methods in our study is notable. This is similar to the global trends where medical abortion is becoming increasingly common, as reported by Faúndes and Shah [20]. Finally, the low complication rate (16%) in our study is encouraging, yet the presence of serious complications like shock and septicemia, albeit in small percentages, calls for continuous monitoring and improvement in abortion care quality.

### Limitations of The Study

The study was conducted in a single hospital with a small sample size. So, the results may not represent the whole community.

## CONCLUSION

This study provides critical insights into the characteristics and outcomes of abortion cases at a

tertiary care hospital in Dhaka, Bangladesh. The findings reveal that the majority of abortion cases occurred in women aged between 26 and 30 years, with a significant number of these patients being primigravida. Most abortions took place in the early stages of pregnancy, with incomplete abortions being the most common type. The preference for surgical intervention over medical treatment was notable, and while the majority of cases did not result in complications, a small yet significant proportion experienced serious health issues post-abortion. The high incidence of incomplete abortions highlights a crucial need for improvements in abortion care, including enhanced training for healthcare providers, better patient education, and improved access to comprehensive abortion services. The study underscores the importance of addressing socio-cultural barriers and stigma associated with abortion to ensure timely and safe access to abortion services. These findings contribute to the understanding of abortion dynamics setting in Bangladesh and emphasize the need for targeted interventions to improve abortion care. The study's insights are vital for policymakers, healthcare providers, and public health practitioners aiming to enhance reproductive health services and reduce the burden of unsafe abortion practices in Bangladesh.

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**Ethical approval:** The study was approved by the Institutional Ethics Committee

## REFERENCES

1. Abortion care guideline [Internet]. [cited 2023 Nov 14]. Available from: <https://www.who.int/publications-detail-redirect/9789240039483>
2. Abortion [Internet]. [cited 2023 Nov 14]. Available from: <https://www.who.int/news-room/fact-sheets/detail/abortion>
3. Singh, S., Remez, L., Sedgh, G., Kwok, L., & Onda, T. (2018). Abortion worldwide 2017: uneven progress and unequal access.
4. The Penal Code, 1860 | 312. Causing miscarriage [Internet]. [cited 2023 Nov 14]. Available from: <http://bdlaws.minlaw.gov.bd/act-11/section-3162.html>
5. Hossain, A., Maddow-Zimet, I., Ingerick, M., Bhuiyan, H. U., Vlassoff, M., & Singh, S. (2017). Access to and quality of menstrual regulation and postabortion care in Bangladesh: evidence from a survey of health facilities, 2014.
6. Vlassoff, M., Hossain, A., Maddow-Zimet, I., Singh, S., & Bhuiyan, H. U. (2012). Menstrual regulation and postabortion care in Bangladesh: factors associated with access to and quality of services. *New York: Guttmacher Institute*.
7. Hossain, A., Maddow-Zimet, I., Singh, S., & Remez, L. (2012). Menstrual regulation, unsafe abortion and maternal health in Bangladesh.
8. Islam, A., Biswas, T. (2014). Health System in Bangladesh: Challenges and Opportunities. *American Journal of Health Research*, 2:366.
9. Crouthamel, B., Pearson, E., Tilford, S., Hurst, S., Paul, D., Aqtar, F., ... & Averbach, S. (2021). Out-of-clinic and self-managed abortion in Bangladesh: menstrual regulation provider perspectives. *Reproductive Health*, 18(1), 1-12.
10. Rahman, M., DaVanzo, J., & Razzaque, A. (2001). Do better family planning services reduce abortion in Bangladesh?. *The Lancet*, 358(9287), 1051-1056.
11. Ahmed, S., Islam, A., & Khanum, P. A. (1999). Induced abortion: what's happening in rural Bangladesh. *Reproductive Health Matters*, 7(14), 19-29.
12. Sedgh, G., Bearak, J., Singh, S., Bankole, A., Popinchalk, A., Ganatra, B., ... & Alkema, L. (2016). Abortion incidence between 1990 and 2014: global, regional, and subregional levels and trends. *The Lancet*, 388(10041), 258-267.
13. Jones, R. K., & Jerman, J. (2022). Population group abortion rates and lifetime incidence of abortion: United States, 2008–2014. *American journal of public health*, 112(9), 1284-1296.
14. Sedgh, G., Singh, S., & Hussain, R. (2014). Intended and unintended pregnancies worldwide in 2012 and recent trends. *Studies in family planning*, 45(3), 301-314.
15. Grimes, D. A., Benson, J., Singh, S., Romero, M., Ganatra, B., Okonofua, F. E., & Shah, I. H. (2006). Unsafe abortion: the preventable pandemic. *The lancet*, 368(9550), 1908-1919.
16. World Health Organization. (2003). *Safe abortion: technical and policy guidance for health systems*. World Health Organization.
17. Singh, S., Wulf, D., Hussain, R., Bankole, A., & Sedgh, G. (2009). *Abortion worldwide: a decade of uneven progress*. Guttmacher Institute.
18. Ganatra, B., Gerds, C., Rossier, C., Johnson, B. R., Tunçalp, Ö., Assifi, A., ... & Alkema, L. (2017). Global, regional, and subregional classification of abortions by safety, 2010–14: estimates from a Bayesian hierarchical model. *The Lancet*, 390(10110), 2372-2381.
19. Anwar, I., Kalim, N., & Koblinsky, M. (2009). Quality of obstetric care in public-sector facilities and constraints to implementing emergency obstetric care services: evidence from high-and low-performing districts of Bangladesh. *Journal of health, population, and nutrition*, 27(2), 139.
20. Faúndes, A., & Shah, I. H. (2015). Evidence supporting broader access to safe legal abortion. *International Journal of Gynecology & Obstetrics*, 131, S56-S59.