*Original Research Article*

# Demographic Profile and Clinical Outcomes of Patients Presented After Unsupervised Medical Termination of Pregnancy in a Tertiary Care Hospital in North India- A Cross-sectional study

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## ABSTRACT

**Aims:** To study the demography, clinical Profile and complications of unsupervised abortion among women in a tertiary care hospital in Bathinda**.**
**Study design:**Cross-sectional analytical Study
**Place and Duration of Study:** Department of Obstetrics and Gynecology, Adesh Institute of Medical Sciences and Research, Bathinda, Punjab, between April 2023 to September 2023
**Methodology:** We included 100 patientsof reproductive age (15-49 years) presented in Department of Obstetrics and Gynecology after unsupervised MedicalTermination of Pregnancy. After the necessary intervention, the patients were interviewed using a predesigned proforma. Data were collected after obtaining written informed consent and study was approved by Institutional ethics committee. Data were analyzed by using SPSS 28.
**Results:**A total of 100 patients were included. The mean age of patients was 27.7 years, with most falling within the 20-30 age range. A significant portion had two or more children (52%), and the majority were housewives (61%) from rural areas (62%). Educational levels varied, with 32% completing 12th grade and 6% having a graduate degree or higher. 89% reported within three days. Vaginal bleeding was universal (100%), while pain abdomen was reported in 53% of cases. Reason of MTP included accidental pregnancy (59%) and spacing between children (38%). Complications included Retained products of conception (RPOC) in 37% followed by unaffected pregnancy in 10% of patients.
**Conclusion:** This study highlights the significant burden of unsupervised Medical Termination of Pregnancy (MTP) and its associated complications among women in Bathinda, Punjab. The findings underscore the pressing need for comprehensive reproductive healthcare services and effective implementation of abortion laws to mitigate the adverse outcomes of unsafe abortions.



*Keywords: Abortion, Medical Termination of Pregnancy (MTP), Self-prescription, Retained Products of Conception (RPOC)*


## 1. INTRODUCTION

Abortion, the deliberate termination of pregnancy before the foetus reaches viability, remains a contentious issue globally.[1] Annually, approximately 73 million induced abortions are performed worldwide, highlighting public health significance of this topic.[2] Despite medical advancements, complications arising from pregnancy-related issues contribute to over half a million maternal deaths annually. Of particular concern is the rising incidence of illegal abortions, which significantly impact maternal mortality rates among reproductive-age women.[3]

Illegal abortions are associated with various complications. While most complications are considered minor, such as bleeding and retained products of conception (RPOC), others can be severe, including septic abortion, peritonitis, and uterine rupture.[4]

Illegal abortions encompass a range of practices, including self-induced abortions using medication, procedures conducted in unhygienic conditions, and those performed by unqualified practitioners.[5] The Medical Termination of Pregnancy (MTP) Act of 1971 was introduced to regulate and ensure safe abortion services. This legislation grants medical professionals, especially gynaecologists, the responsibility to provide safe abortion options without legal hindrances, thereby promoting and safeguarding women's reproductive health.[6]

Recent amendments to the MTP Act have revised the guidelines for abortion procedures based on the gestational age of the foetus, ensuring appropriate medical oversight. Any abortion conducted against the provisions outlined in the MTP Act is considered a violation, emphasizing the necessity for qualified medical professionals to perform abortions with the requisite expertise and skills.[7]

With this background the present study was conducted to study the demography, clinical profile and complications of unsupervised abortion among women in a tertiary care hospital, Bathinda.

## 2. MATERIAL AND METHODS

Present cross-sectional study was conducted on women presenting after unsupervised MTP in the Obstetrics and Gynaecology department at Adesh Hospital, Bathinda, Punjab. The study spanned a duration of six months, from April 2023 to September 2023. The sample size was determined using Daniel's formula, with a prevalence (P) of illegal abortion estimated at 0.16. [8] At confidence level 95% and power 80%, and a precision (D) of 7.5%, considering non response rate as 10% sample size came out to be 106.

Inclusion criteria included patients of reproductive age (15-49 years) who had undergone unsupervised MTP and sought medical care at the hospital and voluntarily provided consent to participate in the study. Exclusion criteria comprised patients who had supervised MTP or those with incomplete medical records.Convenience sampling was utilized to recruit participants. Patients meeting the inclusion criteria and presenting at the hospital during the study period were consecutively enrolled until the desired sample size was achieved. Data were collected using a structured interview schedule and medical records review. After taking written informed consent ( available in Hindi, English, and Punjabi) and necessary intervention and management, the participants were interviewed to gather information on demographic variables and clinical outcomes. Medical records were reviewed to collect additional clinical data.

Ethical approval was obtained from the Institutional Ethics Committee (IEC) of Adesh Institute of Medical Sciences and research prior to data collection. Privacy and confidentiality of participants' information was maintained throughout the study.The recorded data were manually entered in Microsoft Excel and the descriptive data were presented in terms means and percentages. Statistical analysis was performed using SPSS version 28and a significance level of $p < 0.05$ was considered.

## 3. RESULTS AND DISCUSSION

### 3.1 RESULTS

A total of 100 patients were included. The demographic profile of women presenting after unsupervised MTP are presented in Table 1. The mean age of patients was 27.7± 4.5years. Mean period of gestation at the time of unsupervised MTP was 7.4 weeks. The majority of patients fell within the age groups of 20-25 and 26-30 years, with 37% and 34% of the sample, respectively. Notably, there were fewer patients in older age groups. A substantial portion of patients (52%) had two or more children, followed by 36% having one child, and 12% having no children. The education levels varied among patients, with a notable proportion being 12th pass (32%) and having a graduate degree or above (6%). A majority of patients were housewives (61%) and 62% were from rural area.

**Table 1. Demographic profile of patients presenting after unsupervised MTP ( N=100 )**

| Characteristic | Frequency n(%) | p- value |
|---|---|---|
| **Age (in years)** | | |
| **20-25** | 37 | <0.01 |
| **26-30** | 34 | |
| **31-35** | 25 | |
| **36-40** | 4 | |
| **Number of children-** | | |
| **0** | 12 | <0.01 |
| **1** | 36 | |
| **2 or more** | 52 | |
| **Education of patient-** | | |
| **Uneducated** | 10 | |
| **5th pass** | 18 | <0.01 |
| **10th pass** | 34 | |
| **12th pass** | 32 | |
| **Graduate and above** | 6 | |
| **Occupation of patient-** | | |
| **Housewife** | 61 | 0.02 |
| **Working** | 39 | |
| **Region –** | | |
| **Rural** | 62 | <0.01 |
| **Urban** | 38 | |

***Chi- square test used to find p-value.**

The majority of cases (89%) reported within three days of the termination procedure, indicating a need for timely intervention. Vaginal bleeding was universal (100%), while pain abdomen was reported in 53% of cases. Reasons for unsupervised MTP included accidental pregnancy (59%) and spacing between children (38%). Complications were observed in a substantial proportion of cases, with retained products of conception (RPOC) being the most common (37%).(Table 2)

**Table 2- Clinical Profile of patients presenting after unsupervised MTP ( N=100)**

| Characteristic | Frequency n(%) | p- value |
|---|---|---|
| **Reporting time (after unsupervised abortion, in days) -** | | |
| **Within 3 days** | 89 | <0.01 |
| **3-7** | 8 | |
| **>7days** | 3 | |
| **Clinical features-** | | |
| **Vaginal Bleeding** | 100 | - |
| **Pain abdomen** | 53 | 0.54 |
| **Features of shock** | 1 | <0.01 |
| **Reason for unsupervised MTP –** | | |
| **Accidental pregnancy** | 59 | |
| **Spacing between children** | 38 | <0.01 |
| **Failure of contraception** | 3 | |
| **Complications –** | | |
| **Nil** | 53 | |
| **RPOC** | 37 | 0.014 |
| **Unaffected pregnancy** | 10 | |

***Chi- square test used to find p-value.**

### 3.2 DISCUSSION

Unsupervised medical termination of pregnancy (MTP) remains a significant concern, particularly among women of reproductive age. This study aims to investigate the demographic characteristics, clinical profiles, and complications associated with unsupervised MTP among women presented to a tertiary care hospital in Bathinda.The mean age of patients presenting after unsupervised MTP was 27.7 years, indicating its impact on women in their reproductive prime. Most patients fell within the age groups of 20-25 and 26-30 years, underlining the vulnerability of young women to unplanned pregnancies and the subsequent need for termination. Similar findings were noted in studies conducted by Giri et al. and Thakur et al., wherein a significant proportion of patients who underwent unsupervised medical termination of pregnancy (MTP) belonged to the 20-29 age bracket.[9,10]

More than half (52%) of the patients had two or more children. The observation aligns with the results of a study conducted by Bhalla et al., where a substantial majority of patients (77%) had a gravidity of three or more. [11] Similarly, Pal et al. reported that 62% of individuals had a parity of 1-2, while 20% had a parity of 3 or more.[12] This suggests that a notable portion of women undergoing unsupervised MTP might already bear existing family responsibilities. This emphasizes the critical need for accessible and effective family planning services to avert unintended pregnancies within this demographic.

In our study, a significant portion of patients had completed high school education (32%), with a smaller percentage holding a graduate degree or higher (6%). The majority of patients were housewives (61%) and resided in rural areas (62%), suggesting that this issue is prevalent among women who may have restricted access to healthcare resources and family planning services. Addressing the specific needs of these populations through community-based interventions and outreach programs is essential for mitigating the risks associated with unsupervised MTP.

In our study, 89% of cases were reported within three days of the termination procedure. Comparable findings were reported by Munshi et al., where the majority of women (75%) had consumed the abortion pills 1-10 days before presenting to the hospital.[13Emphasizing the necessity for enhanced access to post-abortion care services, such as counseling, contraception, complication management, and timely intervention, is paramount in instances of unsupervised medical termination of pregnancy.

In our study, the mean gestational period at the time of unsupervised medical termination of pregnancy was 7.4 weeks. All patients presented with vaginal bleeding (100%), with over half reporting abdominal pain (53%). Similarly, in a study by Kumari et al., it was found that 50% of women took abortion pills between 7-12 weeks, 32 (32.65%) took them before seven weeks, and 17 (17.35%) took them between 13-20 weeks. The most common clinical presentation was excessive vaginal bleeding in 70 (71.42%) cases. Incomplete abortions were observed in 77 (78.56%) women, missed abortions in 10 (11.22%) women, and septic abortions in 4 (4.08%) women.[14]Highlighting the significance of acknowledging and managing the physical repercussions of unsupervised MTP.

In the current study, the reasons provided for unsupervised MTP, such as accidental pregnancy (59%) and the need for child spacing (38%), underscore the intricate socio-cultural factors shaping reproductive decision-making. Furthermore, in our study a the significant rate of complications were reported particularly retained products of conception (RPOC) in 37% of cases and failure of procedure resulted in unaffected pregnancy in 10%. In a study conducted by Singh et al., it was found that 70% of patients had incomplete abortion, 22% had complete abortion, and 1.3% experienced incomplete abortion with shock. [15] This aligns with our findings, indicating a substantial prevalence of incomplete abortions and the associated risks.

## 4. CONCLUSION

The study highlighted significant challenges posed by unsupervised Medical Termination of Pregnancy (MTP) among women in Bathinda, Punjab. The study revealed that young women, particularly those in the 20-30 age group, are particularly vulnerable to unplanned pregnancies and resort to unsupervised MTP. Family responsibilities, limited education, and rural residence further contribute to the complexity of this issue. The high prevalence of complications, such as retained products of conception, underscores the urgent need for comprehensive post-abortion care services. These findings reinforce the critical importance of accessible family planning services, reproductive health education, and the effective implementation of abortion laws to address the socio-cultural factors influencing reproductive decision-making. Collaborative efforts involving policymakers, healthcare providers, and communities are essential to ensuring safe and legal abortion services, ultimately promoting women's reproductive rights and autonomy.

## CONSENT (WHEREEVER APPLICABLE)

We declare that ‘written informed consent was obtained from the patients

## ETHICAL APPROVAL

We declare that the study was conducted after the approval from ‘Institutional Ethics Committee” ,AIMSR, Bathinda, Punjab.

## REFERENCES


1. Sanger C. About abortion: terminating pregnancy in twenty-first-century America. Harvard University Press; 2017 Mar 27.

2. Bell SO, Shankar M, Moreau C. Global epidemiology of induced abortion. InOxford Research Encyclopedia of Global Public Health 2021 Nov 29.

3. Ralph L, Foster DG, Raifman S, Biggs MA, Samari G, Upadhyay U, Gerdts C, Grossman D. Prevalence of self-managed abortion among women of reproductive age in the United States. JAMA network open. 2020 Dec 1;3(12):e2029245-.

4. Bridwell RE, Long B, Montrief T, Gottlieb M. Post-abortion Complications: A Narrative Review for Emergency Clinicians. Western Journal of Emergency Medicine. 2022 Nov;23(6):919.

5. Adowaa PP. *Unsafe Abortion: The Experiences of Selected Young Women in the Cape Coast Metropolis of Ghana* (Doctoral dissertation, University of Cape Coast).

6. Anand T, Chauhan A, Sharma M, Jha RS. Abortion Laws In India: A Critical Analysis. International Journal of Mechanical Engineering. 2022 Jun;7(6).

7. Gupta V. Introduction of MTP (Amendment) Act, 2021 in Changing Times: An Analysis. Jus Corpus LJ. 2022;3:246.

8. Rashidpouraie R, Dastjerdi MV, Shojaei A, Saeeditehrani S, Sharifi M, Joodaki K, Moosavinejad S, Rashidpouraei M, Zahedi L, Mashkoori A, Larijani B. Complications of illegal abortion in the suburbs of Tehran: A 9-year cross-sectional study. Journal of Research in Medical Sciences: The Official Journal of Isfahan University of Medical Sciences. 2021;26.

9. Giri A, Srivastav VR, Suwal A, Sharma B. A Study of Complications following Self-administration with Medical Abortion Pills. Nepal Journal of Obstetrics & Gynaecology. 2015 Jan 1;10(1).

10. Thakur N, Verma RS, Nagaria T. Self-administration of Abortion Pills and its Maternal Outcome in Tertiary Care Center. Journal of South Asian Federation of Obstetrics and Gynaecology. 2023 May 11;15(2):142-6.

11. Bhalla S, Goyal LD, Bhalla S, Kaur B. Self administered medical abortion pills: evaluation of the clinical outcome and complications among women presenting with unsupervised pill intake to a tertiary care hospital in Malwa region of Punjab, India. Int J Reprod Contracept Obstet Gynecol. 2018 Apr 1;7(4):1537e42.

12. Pal R, Gupta PK, Tyagi S, Palariya H, Vora V, Agarwal P, Palariya Jr H. Determinants of Unsupervised Medical Termination of Pregnancy Pill Usage Among Women: A Cross-Sectional Study From North India. Cureus. 2023 Nov 24;15(11).

13. Munshi KS, Thaker RV, Shah JM, Mewada BN. Self-medication of abortion pills and its complications: an observational study. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2018 Jan 1;7(1):205-10.

14. Kumari R, Tirkey S, Kumari A. Over-the-Counter Use of Medical Abortion Pills: A Prospective Cohort Study. Journal of Clinical & Diagnostic Research. 2023 Aug 1;17(8).)

15. Singh P, Dhurwey N, Patel J. Demography, clinical profile and outcomes of self-prescribed abortion pills among women, experience from a tertiary care teaching hospital in central India. International Journal of Reproduction, Contraception, Obstetrics and Gynecology.;12(10):2.