Global Journal of Medicine & Public Health

Perils of self-managed medical abortion: an observational study in aspirational district Fatehpur, Uttar Pradesh, India

Roshani Gupta[1], Pragya Shree[2], Divyata Sachan[3]

ABSTRACT

Background

Despite legislation governing medical termination of pregnancy (MTP), many women self-administer MTP pills without medical supervision. This study aims to investigate the maternal morbidity and mortality associated with the use of self-managed abortion pills and the various factors contributing to their misuse.

Methodology

We conducted a prospective, hospital-based observational study at Amar Shaheed Jodha Singh Attaiya Thakur Dariyaon Singh Medical College, Fatehpur, Uttar Pradesh. Eligible women were consecutively enrolled during routine clinical care between 1 July 2024 and 30 June 2025. Two hundred thirty-nine pregnant women who reported to the outpatient department (OPD) or the emergency room with a history of taking the MTP pill (mifepristone–misoprostol combination) without a valid medical prescription, whether procured by themselves or by another person over the counter, were included in the study.

Results

Of 239 participants, most (76.15%) were aged 20–30 years. Over half (55.23%) were from rural areas, and 53.97% belonged to the middle class. The majority (64.02%) had two or more children, and 61.51% had vaginal deliveries. At the time of taking the MTP pill, 64.01% were under 12 weeks pregnant. Nearly one-third (31.80%) sought hospital care more than 30 days after taking the pill. Severe anemia occurred in 21 participants, while 3 required ICU care, 3 developed sepsis, and 1 underwent laparotomy for ectopic pregnancy or perforation. No maternal deaths were reported. Only 40.59% assessed their eligibility for medical abortion, and awareness of possible complications was low (12.97%).

Conclusion

Using MTP pills without medical supervision can lead to severe and potentially life-threatening complications. It is imperative to restrict easy and unrestricted access to these medications, necessitating the implementation of stringent regulations targeting both individuals seeking the pills and those providing them.

Keywords: self-managed abortion, medical abortion, mifepristone, misoprostol, MTP Pill, MTP Act, maternal morbidity, India

GJMEDPH 2025 Vol. 14, issue 5 | OPEN ACCESS

1*Corresponding author: Roshani Gupta, DGO, DNB, Assistant Professor, A.S.J.S.A.T.D.S. Medical College, Fatehpur, Uttar Pradesh, India. Email: guptaroshani71@yahoo.in; 2.Pragya Shree, Associate Professor, Dr. Ram Manohar Lohia Institute of Medical Sciences Email: pragyataashi@gmail.com; 3.Divyata Sachan, MBBS, MD (Community Medicine) Assistant Professor, Department of Community Medicine, Hind Institute of Medical Sciences, Barabanki, Lucknow, Uttar Pradesh, India. Email: divyatasachan92@gmail.com

Conflict of Interest—none | Funding—none

Ethics approval: Approved by the Institutional Ethics Committee of A.S.J.S.A.T.D.S. Medical College, Fatehpur (Approval No. 813 dated 8/4/2024). Informed consent obtained from all participants.

INTRODUCTION

Unsafe abortions remain a major cause of maternal morbidity and mortality. Globally, an estimated 73 million induced abortions occur each year, with 97% of unsafe procedures taking place in low- and middle-income countries (1). India continues to experience a high incidence of unsafe abortions. According to NFHS-5, about 77% of unintended pregnancies end in abortion, yet only 22% are performed safely. Unsafe abortions account for roughly 8% of maternal deaths in India (2). They can lead to both physical and psychological health complications and impose social and economic burdens on women, their families, communities, and healthcare systems. The World Health Organization (WHO) has been at the forefront of advocating for safe abortion practices, including medical termination of pregnancy (MTP) self-management. According to the WHO, MTP self-management can be a safe and effective option for women, especially in settings where access to healthcare facilities is limited. The WHO's recommendations emphasize the importance of informed decision-making, access to accurate information, and the availability of support systems for women undergoing MTP (3). In particular, the WHO's guidelines on MTP self-management highlight the need for providing women with clear instructions on how to use abortion medication safely and effectively, as well as ensuring that they are aware of the potential complications and know how to seek medical help if needed. However, a stark contrast exists between the WHO's recommendations and the reality on the ground in many medical facilities. Research has shown that many women in India lack access to accurate information and support, leading to poor self-evaluation and delayed reporting of complications. In many cases, women are not adequately informed about the potential risks and complications associated with MTP, which can lead to serious health consequences. The lack of awareness and support for MTP self-management can result in inadequate care and treatment for women who experience complications. The disconnect between the WHO's recommendations and the local reality highlight the need for access to safe and effective MTP services, including self-management options. This study provides an in-depth analysis of the clinical profiles of women who have taken the MTP pill without medical supervision, the complications they experienced, and the reasons behind their decision to use the pill, in Aspirational District Fatehpur (underdeveloped region, based on low socio-economic indicators). The findings of this study can inform healthcare policies and practices, ultimately improving the safety and well-being of women undergoing medical termination of pregnancy.

Objectives

* To investigate maternal complications associated with the intake of self-managed medical abortion using a combination of mifepristone and misoprostol.
* To identify various sociodemographic and cultural factors associated with taking unprescribed MTP pills.

Materials And Methods

Following approval from the Institutional Ethics Committee, this study was conducted in the Department of Obstetrics and Gynecology at Amar Shaheed Jodha Singh Attaiya Thakur Dariyaon Singh Medical College, Fatehpur, over a period of eleven months.

Sampling Methodology

Purposive Sampling was used to recruit women with direct experience of unsupervised medical abortion. Eligible participants were pregnant women presenting to the outpatient department or emergency room with a history of taking a mifepristone–misoprostol combination (MTP pill) up to 12 weeks of gestation without a valid prescription.

Inclusion Criteria

All pregnant women reporting at OPD or Emergency room with a history of intake of MTP pill (both Mifepristone and Misoprostol) for medical termination of pregnancy up to 12 weeks without a valid medical prescription, whether obtained by self or by someone over the counter.

Exclusion Criteria

Women who were unwilling to provide the necessary information, had not accessed MTP without medical direction, or did not provide consent for the study.

Study Design

This hospital-based prospective observational study was conducted from July 1, 2024, to June 30, 2025, following ethical clearance. After applying inclusion and exclusion criteria, data was electronically collected on participants' age, marital status, education level, socioeconomic status, religion, parity, residence, prior delivery mode, gestational age at MTP pill intake, timing of hospital reporting, recorded complications, medical interventions, self-evaluation of eligibility (gestational age and contraindications), and awareness of potential complications.

Statistical Analysis

Suitable statistical analysis software such as MS Excel and SPSS version 20 was utilized for data analysis and interpretation.

RESULTS

The study revealed several key findings that provide insights into the demographic characteristics, obstetric history, and complications associated with the unsupervised intake of MTP pills. As seen in Table 1. , the age distribution of the participants shows that the majority, 182 (76.15%), were between 20-30 years old, while 26 (10.88%) were less than 20 years old, and 31 (12.97%) were more than 30 years old. In terms of marital status, 220 (92.05%) participants were married, and 19 (7.95%) were unmarried or divorced. The educational background of the participants indicates that 69 (28.87%) had no education, 74 (30.96%) had primary education, 51 (21.34%) had secondary education, and 45 (18.83%) had higher education. Regarding residence, 132 (55.23%) participants were from rural areas, and 107 (44.77%) were from urban areas. The socioeconomic status of the participants reveals that 38 (15.90%) belonged to the upper class, 72 (30.13%) to the middle class, and 129 (53.97%) to the lower class

TABLE 1: Distribution of socio-demographic parameters among study participants (N = 239)

Parameter	Category	Frequency (N=239)	Percentage (%)	95% CI for %
Age distribution	Less than 20	26	10.88	6.9–14.8
	20–30	182	76.15	70.7–81.6
	More than 30	31	12.97	8.7–17.2
Marital status	Married	220	92.05	88.6–95.5
	Unmarried/Divorcee	19	7.95	4.5–11.4
Education	No education	69	28.87	23.1–34.6
	Primary	74	30.96	25.1–36.8
	Secondary	51	21.34	16.1–26.5
	Higher education	45	18.83	13.9–23.8
Residence	Rural	132	55.23	48.9–61.5
	Urban	107	44.77	38.5–51.1
Socioeconomic status	Upper	38	15.90	11.3–20.5
	Middle	72	30.13	24.3–35.9
	Lower	129	53.97	47.7–60.3

As seen in Table 2, the parity of the participants shows that 86 (35.98%) had 0 or 1 child, while 153 (64.02%) had 2 or more children. In terms of prior delivery mode, 147 (61.51%) participants delivered vaginally, and 92 (38.49%) had a lower segment cesarean section (LSCS). The gestational age at the time of MTP pill intake was less than 12 weeks in 153 (64.01%) participants, and more than 12 weeks in 86 (35.98%). Hospital reporting occurred within less than 15 days of MTP pill intake for 34 (14.23%) participants, within 15-30 days for 129 (53.97%) participants, and after more than 30 days for 76 (31.80%) participants. The interventions performed for OTC MTP pill intake included misoprostol

administration for 49 (20.50%) participants, blood transfusion for 12 (5.02%) participants, and suction evacuation for 56 (23.43%) participants.Only 97 (40.59%) participants had done a self-evaluation of gestational age and contraindication at the time of pill intake, while 142 (59.41%) did not.

TABLE 2: Clinical parameters among study participants (N = 239)

Parameter	Category	Frequency (N=239)	Percentage (%)	95% CI for %
Parity	0, 1	86	35.98	29.9–42.1
	2 or more	153	64.02	57.9–70.1
Prior mode of delivery	Vaginal	147	61.51	55.3–67.7
	LSCS	92	38.49	32.3–44.7
Gestational age at intake of MTP pill (calculated from missed period)	Less than 6 weeks	153	64.01	57.9–70.1
	6 weeks -12 weeks	86	35.98	29.9–42.1
Hospital reporting after MTP pill intake	Less than 15 days	34	14.23	9.8–18.7
	15-30 days	129	53.97	47.7–60.3
	More than 30 days	76	31.80	25.9–37.7
Self-evaluation of eligibility at time of pill intake	Yes	97	40.59	34.4–46.8
	No	142	59.41	53.2–65.6
Intervention done for OTC MTP pill intake	Misoprostol administration	49	20.50	15.4–25.6
	Blood transfusion	12	5.02	2.3–7.8
	Suction evacuation	56	23.43	18.1–28.8
	Laparotomy	1	0.41	0.0–1.2

Table 3 states that 21 (8.79%) participants experienced severe anemia, 3 (1.26%) required ICU admissions due to shock, 3 (1.26%) had sepsis, and 1 (0.42%) required laparotomy for ectopic or perforation. No maternal mortality was reported. Awareness of complications associated with the MTP pill was reported by 31 (12.97%) participants, while 208 (87.03%) were unaware.

TABLE 3: Complications and awareness among study participants (N = 239)

Parameter group	Category	Frequency (N=239)	Percentage (%)	95% CI for % (approx.)
Complications at hospital visit	Severe anemia	21	8.79	5.2–12.4
	Shock requiring ICU admissions	3	1.26	0.0–2.7
	Sepsis	3	1.26	0.0–2.7
	Laparotomy for ectopic pregnancy or perforation	1	0.42	0.0–1.2
	Maternal mortality	0	0.00	–
Awareness of MTP pill complications	Yes	31	12.97	8.7–17.2
	No	208	87.03	82.8–91.3

Figure 1 illustrates the distribution of individuals who advised participants to take medical termination of pregnancy (MTP) pills without medical supervision. Family members were the most common source of advice (64.02%), followed by friends (17.15%), unqualified practitioners (12.13%), and Accredited Social Health Activists (ASHA) workers (6.69%). The findings highlight the strong influence of informal networks in shaping women's abortion decisions.

Figure 1: sources of advice for MTP pill intake

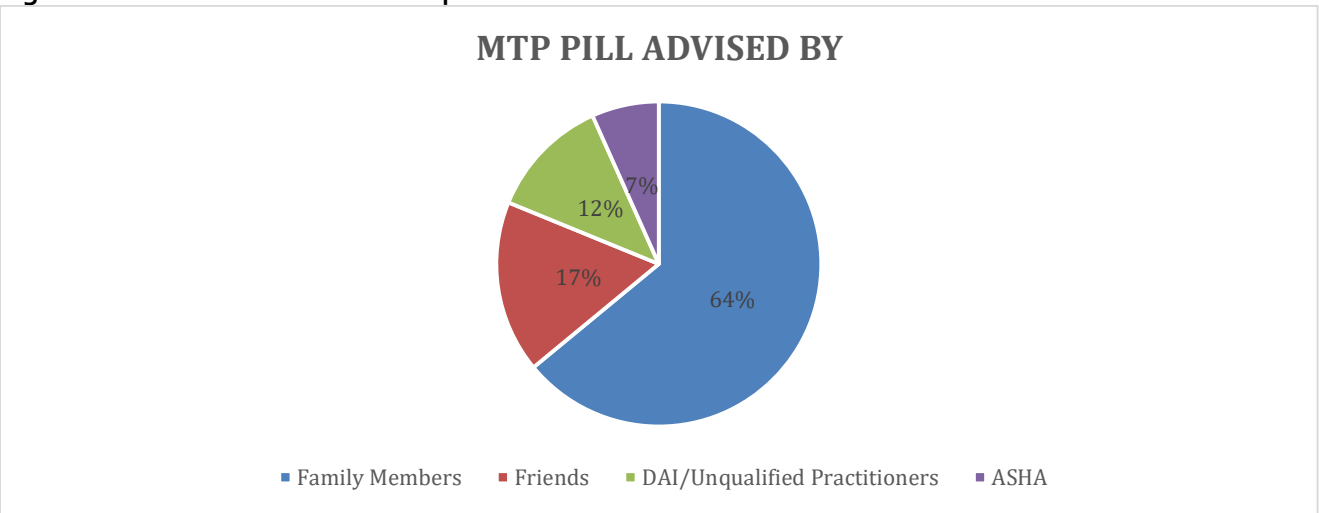
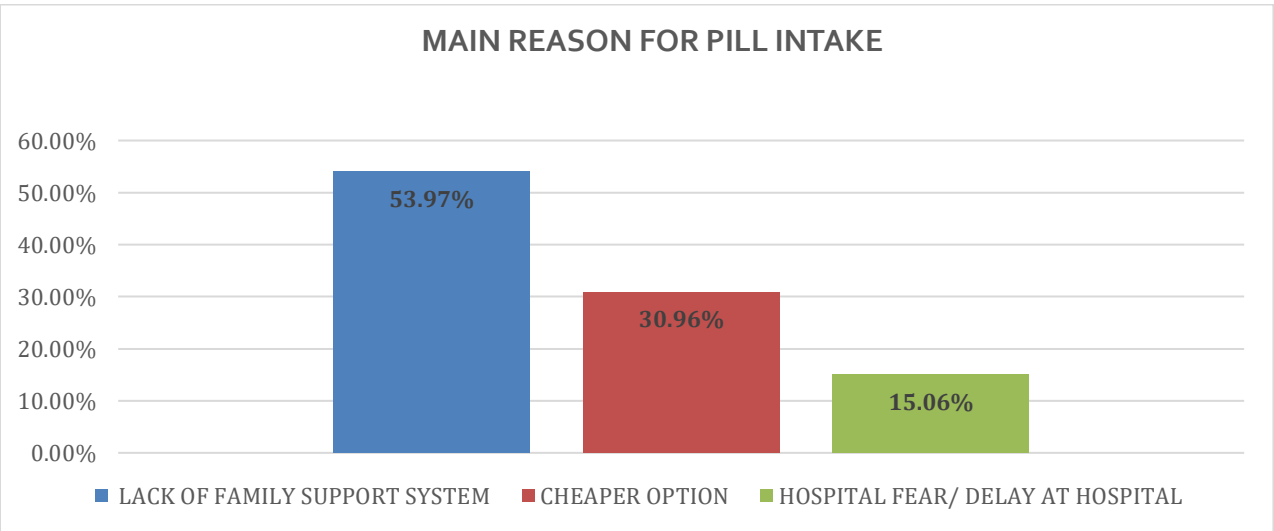


Figure 2 depicts distribution of the main reasons cited by participants for choosing unsupervised intake of MTP pills. Lack of family support was the leading factor (53.97%), followed by the perception of medical abortion as a cheaper option (30.96%), and fear of hospitals or delays in hospital services (15.06%). These results underscore the role of social, economic, and systemic barriers in driving unsafe abortion practices.

Figure 2: distribution of primary reasons for self-managed abortion



DISCUSSION

Unsafe abortion is a significant contributor to maternal mortality and morbidity. In India, it ranks as the third leading cause of maternal deaths. The Medical Termination of Pregnancy (MTP) Act has undergone considerable changes since its introduction in 1971. Its original purpose was to regulate abortion access and reduce maternal mortality rates. The Medical Method of Abortion was approved in the 2003 amendment to the MTP Act (4). Medical abortion involves taking specific medications that block progesterone, leading to the thinning and contraction of the uterine lining, ultimately resulting in the expulsion of the embryo. This method is less invasive than surgical procedures. However, it is crucial to consult a registered medical practitioner to ensure that the woman is eligible, properly assessed, and fully informed about the procedure, its risks, and available alternatives. This research adds to the limited evidence concerning the challenges faced by obstetricians regarding the improper self-management of medical abortion using MTP pills in a hospital serving a rural community. Our primary study group, composed of individuals aged 20 to 30, closely aligns with the findings of Pandey et al., who reported a percentage of 67.14% (5).

In our study, most participants belonged to the lower socioeconomic class and had lower levels of education. These findings are consistent with several previous studies (6,7,8). Like our research, multiple studies have indicated a higher prevalence of multigravida. This underscores the necessity of prioritizing spacing and terminal methods of contraception (9,10). In accordance with the study conducted by Singh et al. most participants consumed MTP pills during a 12-week gestational period and reported to the hospital 15 days after starting the medication, presenting with a variety of complaints (11). In our study, only 23% of participants required dilation and evacuation, contrasting with the findings of Nivedita et al. (12), who reported this necessity in 67.15% of their participants. Rath et al. (10) documented a higher incidence of ruptured ectopic pregnancies and sepsis, with a rate of 24%, compared to just one case each in our study. Additionally, a recent study by Singh et al. indicated an ectopic pregnancy rate of 8.14% (13). In accordance with the study conducted by Lenka et al. (14), our research found that family members, including husbands, primarily recommended the use of MTP pills without any consultation with a Registered Medical Practitioner. This practice is concerning, as it can lead to serious health risks due to the potential for complications. Educating Accredited Social Health Activists (ASHAs), Auxiliary Nurse Midwives (ANMs), multi-Purpose Workers (MPWs), and other healthcare professionals will undoubtedly help ensure the proper use of MTP pills. Only 40.59% of participants reported following the WHO recommendations of completing a self-evaluation of gestational age and contraindications before taking the MTP pill. Limited access to accurate information and low educational attainment likely constrained women's ability to self-manage medical abortion safely. Overall, 87.03% of participants were unaware of potential complications, like the findings of Pal et al. (15). A lack of social support, the lower cost of medication abortion (using MTP pills), and fear of hospitals were indeed significant factors that deterred women from seeking hospital-based abortions. The Rural Health Statistics Report (2019-20) indicates a 69.7% deficit of obstetricians and gynecologists in community health centers across rural India, relative to the needs of the existing infrastructure, with 56.1% of positions unfilled (16). This shortage of qualified healthcare professionals may further limit women's access to safe abortion services, particularly in rural regions of India. The combination of delayed care-seeking (with over 85% presenting after 15 days), high rates of severe anemia, and limited awareness of complications highlights an urgent need to strengthen community-level counselling, pharmacy regulation, and timely referral systems in aspirational districts like Fatehpur.

RECOMMENDATIONS

1. Regulation of MTP Kit Distribution: Instituting a prohibition on over-the-counter sales of medical termination of pregnancy (MTP) kits may mitigate their misuse. Instead, these kits should be dispensed exclusively through authorized healthcare professionals or certified medical facilities.

2. Strengthening Surveillance Mechanisms: Establishing specialized district-level monitoring teams dedicated to tracking and reporting abortion-related complications can facilitate the identification of deficiencies in service provision and highlight areas requiring enhancement.
3. Public Education Initiatives: Implementing targeted awareness campaigns can inform women about the risks associated with unsafe abortion practices, emphasize the necessity of consulting qualified healthcare providers, and promote knowledge of available support services.
4. Capacity Development for Healthcare Providers: Providing comprehensive training to community health workers regarding eligibility criteria, contraindications, and potential complications associated with MTP kits can ensure the dissemination of accurate information and appropriate patient referrals.
5. Addressing Deficiencies in Service Delivery: Systematic identification and rectification of gaps within service delivery centers are essential to guarantee that women have access to safe, respectful, and high-quality reproductive healthcare services.

LIMITATIONS

This study has several limitations. Firstly, the single-center design may limit the generalizability of the findings to broader populations or different settings. Secondly, reliance on self-reported data may introduce biases due to subjective reporting. Lastly, the lack of follow-up data restricts the understanding of long-term outcomes or effects. Also, reliance on hospital-based data excludes those who never sought care. These limitations should be considered when interpreting the study's results.

CONCLUSION

Unsupervised medical abortion poses serious health risks. The combination of delayed care-seeking, high rates of severe anemia, and limited awareness of complications highlights an urgent need to strengthen community-level counselling, pharmacy regulation, and timely referral systems in aspirational districts like Fatehpur.These findings underscore the need for heightened awareness and appropriate medical guidance to mitigate the risks associated with self-managed medical abortion. Healthcare policies and practices must be aligned to enhance the safety and well-being of women opting for medical abortions. This research emphasizes the urgent requirement for targeted interventions that consider the regional, demographic, and social factors influencing abortion practices in India.

ISSN# 2277-9604

REFERENCES

1. Bearak J, Popinchalk A, Ganatra B, Moller AB, Tunçalp Ö, Beavin C, Kwok L, Alkema L. Unintended pregnancy and abortion by income, region, and the legal status of abortion: estimates from a comprehensive model for 1990–2019. The Lancet Global Health. 2020 Sep 1;8(9): e1152-61.
2. Singh S, Singh KK. Factors associated with unintended pregnancies in India among married women over the past one and half decade (2005–2021): a multivariable decomposition analysis. BMC Pregnancy and Childbirth. 2025 Apr 8;25(1):404.
3. Abortion Care Guideline. Self-management Recommendation 50: Self-management of medical abortion in whole or in part at gestational ages < 12 weeks. World Health Organization. 2022.https://srhr.org/abortioncare/chapter-3/service-delivery-options-and-self-management-approaches-3-6/self-management-recommendation-50-self-management-of-medical-abortion-in-whole-or-in-part-at-gestational-ages-12-weeks-3-6-2/
4. Bhandari A. Navigating the Sociological and Legal Aspects of Abortion in India in the Context of the MTP Amendment Act 2021. Jus Corpus LJ. 2022; 3:258.
5. Pandey S, Sapre S, Shrivastava R, et al. Complications Necessitating Hospitalization after MTP Pill Use: A 1-year Retrospective Study at a Tertiary Care Teaching Institute in Gujarat. J South Asian Feder Obst Gynae 2024;16(6):644–649.
6. **Gupta** R, Lal P, Agarwal S, Gupta N, Tahilyani R, Dawani N. Is Self-medication with over the Counter Abortion Pills Really Safe? An Experience at a Tertiary Care Centre. J South Asian Feder Obs Gynae 2018; 10 (3):227-230.
7. Thakur N, Verma RS, Nagaria T. Self administration of Abortion Pills and its Maternal Outcome in Tertiary Care Center. J South Asian Feder Obst Gynae 2023;15(2):142–146.
8. Malik M, Girotra S, Zode M, Basu S. Patterns and Predictors of Abortion Care-Seeking Practices in India: Evidence From a Nationally Representative Cross-Sectional Survey (2019-2021). Cureus. 2023 Jul 1;15(7): e41263. doi: 10.7759/cureus.41263. PMID: 37529821; PMCID: PMC10390032.
9. Arora N, Singh N. Medical abortion in India – An imperative need for task sharing. J Family Med Prim Care 2022;11(9):5473–5478. DOI: 10.4103/jfmpc.jfmpc_86_22.
10. Rath S, Mishra S, Tripathy R, Dash S, Panda B. Analysis of Complications and Management After Self-Administration of Medical Termination of Pregnancy Pills. Cureus. 2021 Nov 18;13(11): e19730. doi: 10.7759/cureus.19730. PMID: 34934592; PMCID: PMC8684582.
11.Singh J, Singh M, Malik AK, Raja M, Joshi C, Pal YS. Self Induced Abortion Among Women Admitted In A Tertiary Care Centre-A Cross Sectional Study. International Journal of Medicine & Public Health. 2024 Apr 1;14(2).
12. Nivedita K, Shanthini F. Is It Safe to Provide Abortion Pills over the Counter? A Study on Outcome Following Self-Medication with Abortion Pills. J Clin Diagn Res. 2015 Jan;9(1): QC01-4. doi: 10.7860/JCDR/2015/11626.5388. Epub 2015 Jan 1. PMID: 25738038; PMCID: PMC4347129.
13. Singh A, Bhaskaran S, Singla A. Outcome and complications of self-administration of over-the-counter abortion pills: an observational study in a tertiary care hospital of a medical college in New Delhi. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2021 Aug 1;10(8):3148-53.
14. Lenka PK, Mohanty MK, Jena SK, Singh S, Jyotiranjan S. Unsupervised Medication-Induced Abortions: A Cross-Sectional Study in a Tertiary-Care Hospital. Cureus. 2025;17(4).
15. Pal R, Gupta P K, Tyagi S, et al. (November 24, 2023) Determinants of Unsupervised Medical Termination of Pregnancy Pill Usage Among Women: A Cross-Sectional Study from North India. Cureus 15(11): e49321. DOI 10.7759/cureus.49321.
16. Kaur M, Singh B. Rural Healthcare Development in India: Evidences From Rural Health Statistics 2019-20 And National Health Profile 2019. Health. 2019;2019(20).