SELF-INDUCED MEDICAL ABORTION: A RISING CHALLENGE
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ABSTRACT: In India medical abortion has become acceptable to the masses. As per the MTP Act 2003 medical abortion can be provided by certified providers at approved places or centres which have referral linkages even though the Centre is not approved for MTP. Despite this in India a large number of abortions are still illegal. People are resorting to abortion without any pre-abortion checkup or counseling which is contrary to the MTP Act. This study was carried out to determine the reasons for resorting to self-induced abortion, assess the associated complications and acceptance of contraception after abortion. 77.7% of women in this study included those who reported to hospital following self-administered abortion so did not have any checkup, investigation or counseling. 23% women got the prescriptions from RMP, 42.85% from chemists and 30% from friend even though 55% of them were not residing far from the hospital. Following self-administered abortion, women reported with pain abdomen, retained products, pelvic inflammatory disease and heavy bleeding requiring emergency suction evacuation. These women were not aware about the need for contraception and mistook self-induced abortion as a method for family planning. They resorted to self-induced abortions because they believed it to be safe, and presumed that a visit to the hospital is avoidable. 45% of these women had undergone abortions in the past without any side effect. It is feared that if self-induced medical abortions continues unheeded the health system will get overburdened with resultant complications besides losing an opportunity for contraceptive counseling. It is recommended that the private practitioners may be brought into the system besides ensuring that regulations regarding prescription of drugs and the MTP Act are followed. Besides this masses should be made aware of the legality of medical abortion by using handouts and posters.

INTRODUCTION: Access to safe abortion services are the need of the current era especially when 328 million women in India are in the reproductive age group (15-49 years) which constitute 26% of the total population of nearly 1.2 billion.¹ Approximately 50% of the Indian population is below 25 years of age and more than 65% below 35 years.² Abortion Assessment Project – India (AAPI) in 2002 reported nearly 26 abortions per 1,000 women of reproductive age being carried out annually.³ The exact number of abortions conducted in India is not known but it is estimated that nearly 6.7 million abortions are carried out every year.⁴ Of this only one million are being carried out legally.⁵

Medical abortion is a simple, safe and effective method of induced abortion.⁶ In India Mifepristone-Misoprostol has become acceptable and accessible to the masses including in rural settings. In general, access to surgical abortion is less in rural settings despite 40 years of implementation of the MTP act of abortion due to lack of infrastructure, service providers and manpower.⁷ Drug Controller General of India approved the use of Mifepristone in April 2002 and the use of Misoprostol for termination of pregnancy up to 49 days gestation period in December 2006.

Following this in December 2008, the Central Drug Standard Control Organisation, Directorate General of Health approved a combipack of that included 1 tablet of mifepristone 200mg and 4 tablets
of misoprostol 200mcg each for the medical termination of intrauterine pregnancy (MTP) for up to 63 days gestation or 9 weeks. Many studies have reflected on the safety, acceptability and efficacy of medical abortion in India. Acceptance of medical abortion has been instrumental in reducing the serious side effects following surgical abortions like sepsis and injury to viscera which were common when conducted in centers that were either not approved or were unsafe. However, this has led to a tremendous increase in self-induced medical abortions. People can access medical abortion easily without prescription from the chemists, RMP, NGOs, ANM etc. Stillman has reported that Indian women prefer self-induced abortion rather than going to a doctor. In fact as per Lakkawar et al they resort to abortion rather than use effective contraception. The present study was conducted to delve deeper into this issue in a rural area of Haryana, with an objective to study the factors leading to self-induced abortion, assess the complications following it, and make recommendations for improving the quality of medical abortion services with a focus on utilizing this missed opportunity for counseling on post-abortal contraception.

METHODOLOGY: This retrospective observational study was conducted at the OB-Gynae department of a medical college and research centre in rural Haryana. The sample includes 90 women who attended the OPD either for seeking medical abortion (Group A=20) or following self-prescribed medical abortion at home (Group B=70). Detailed history taking and examination was performed on all women by the chief investigator.

OBSERVATIONS AND RESULTS: The patient characteristics of the study group are provided in Table 1. Majority (87.4%) of women was in the 20-35 year age group, and had 2 or more living children (60.2%). One woman was unmarried. Although 70.2% women had education up to secondary school or higher, 64.4% women had not used any contraception before and 45.55% had had at least one previous medical/surgical abortion. Earlier usage of emergency contraception was seen in only 14%. One woman had undergone surgical abortion once and medical abortion two times. All women had confirmed pregnancy by performing the urine pregnancy test at home.

Table 2 depicts the factors that could affect outcome of medical abortion. In the self-medicated group 77% of the women took the pills without any checkup or investigation and on the advice of RMP/family friend/chemist who told them that the method is safe, does not require any kind of surgical intervention and hence convenient. Only 25.55% consulted doctor before resorting to abortion. 62% women in the study lived or worked within 10 km of the hospital, but still 77.5% had self-medicated themselves. 27% in the self-medicated group did consult a doctor/Registered Medical Practitioner, but they were not counseled about the complications or guided where to go in case of any serious side effects like hemorrhage. None of the women knew about the need to visit a doctor for follow-up to confirm the completion of abortion.

All except one woman (98.6%) had taken the pills within 56 days (8 weeks) of gestation. Except for one, all had taken Mifepristone on day1. The regimen followed for Misoprostol was variable. Only 12/70(15%) in the self-medicated group had followed the standard protocol, others had deviated from it, starting Misoprostol on day1 (10%) or day 2(55%), or 4(20%) following Mifepristone. Most had taken misoprostol orally while 16% had taken it vaginally.

Table 3 depicts the outcome. Complete abortion was seen in 60%. Complication rate was very high in the self-medicated group (Group B). All the women in this group had reported to the hospital...
with abnormal uterine bleeding (Prolonged/irregular/excessive) or pain abdomen. Retained products of conceptions were confirmed by USG in 42.85% of which 5 women required emergency suction and evacuation. Amongst the Group A, only 3/20 women reported back with pain abdomen.

The contraceptive acceptance of women is given in Table 4. All the women in Group A were counseled at the first and third visit. While 40% agreed to the use of condoms, another 40% agreed to use of Inj. DMPA or OCs. IUCD was inserted in one and one agreed to get tubectomy done. In Group B also counseling was done and nearly all of them agreed to come for the contraception in the next cycle after discussing with their husbands, but only 50% came for follow up. In this group effective methods of contraception were accepted by 14.42% women and another 18.88% accepted barrier methods.

To understand the links between patient characteristics and outcomes of abortion, nonparametric statistics were undertaken. Spearman rank order correlations showed that the prescriptions and outcome & complications were significantly correlated ($r=0.47$, $p=0.000$).

It is surprising that there is no significant relationship between the distance to health centre and prescriptions. Perhaps the link is more complex and there are other factors that influence the access to the health centers such as the time it takes to see the health professional or the direct and indirect costs involved in visiting the health centre. During interviews, the involvement of other family members for a visit to health centre was also cited as a deterrent. Regression was undertaken to determine if outcomes & complications could be explained by multiple factors. A significant model ($p=0.000$) including factors such as age, number of children, education, previous abortions, distance to the health centres and prescriptions were able to explain 30% of variance. The prescriptions on its own were able to explain 12% of variance. Education and previous number of abortions were negatively linked indicating that increase in education and higher number of abortions impacted the outcomes & complications. The distance to health centre only explained 2% of variance and number of children and previous abortion explains 6% variance independently. Overall, it appears that there are other factors that must also play a role in the decision making process. Further detailed survey and interviews are required perhaps to understand the family dynamics and the role the husband or family plays.

**DISCUSSION AND RECOMMENDATIONS:** Medical abortion is a safe method provided the norms laid out by the MTP Act are met.\(^4\) MTP act clearly spells out that medical abortion can only be provided by certified abortion providers, at approved sites which have referral linkages and within 63 days of the LMP.\(^4\) Also it has been well documented that medical abortion is more effective in women with gestation less than 63 days or 9 weeks.\(^6\) WHO defines unsafe abortion as a procedure for terminating an unintended pregnancy either by individuals without the necessary skills or in an environment that does not conform to minimum medical standards, or both.\(^13\) In our study out of the ninety women who were included in the centre only twenty came desiring early abortion while the remaining seventy came with some complication following self-induced abortions The complications were much more than what has been reported for medical abortion because they did not have any check-up, investigation or counselling before abortion.

Most of our clients had access to health services; although 61% were within 10km of the hospital, they took course to self-administration assuming the method was safe, did not involve a visit to the doctor and that surgery was not needed.

These clients were not aware of the consequences of unsupervised medical abortion and wanted to get an abortion as soon as possible and without letting anyone know. The couples/women
desire methods that involve minimal visits to the hospital due to cost issues involving loss of wages of
the escort accompanying them to the hospital. Even though these drugs are not meant to be made
available over the counter, most clients were able to procure them with ease. This has been reported
in previous studies as well.\(^{(11)}\) It appears that couples have started using the self-induced medical
abortion routinely as it is easily available and they think it is safe, hassle free, convenient (Can be taken
at home) and at the same time confidentiality is maintained.\(^{(12)}\) In a large series reported recently from
a tertiary care centre in Delhi, abortion pills were purchased from chemists by \(85.4\%\) women, \(95.9\%\)
women had self-intake of abortion pills due to lack of awareness, \(16.8\%\) considered it as emergency
contraceptive pill, \(52.7\%\) took abortion pill in incorrect way and \(22\%\) took after 9 weeks of gestation.\(^{(14)}\)

Clinical trials and studies have shown that if Misoprostol is administered at home after the first
visit women find it acceptable whereas the efficacy remains the same. Elul et al have suggested that
misoprostol can be given at home.\(^{(15)}\) Fiala et al have stated that with home use of misoprostol, number
of visit to the hospital will reduce and improve accessibility.\(^{(16)}\) Bracken H has reported that home
administration of misoprostol is safe and as effective as given in clinics.\(^{(17)}\) There is need for further so
that the mandatory visits are minimized and incidence of illegal abortions is reduced.

It is recommended that the masses need to be brought into the picture. They have to be
informed about the consequences of unsafe abortion. There is a need to provide information to the
population so that they can become aware of the pitfalls of self-administered abortion. It is important
to focus on the fact that each drug has a side effect and that prevention is better than using the
abortifacients without any supervision. It is feared that if self-induced abortions continue unheeded
then a good method of abortion can become unpopular because of the complications. The packet
containing the abortion pills should have an insert giving information for patient education, so that
they are able to grasp the problems of self-administered medical abortion and its complications.
Aggarwal, et al have reported that in their series \(16.4\%\) had complete abortion, \(2.4\%\) cases were of
undiagnosed ectopic pregnancy, \(17.8\%\) required emergency suction evacuation and \(15.7\%\) required
multiple blood transfusions.\(^{(14)}\)

It is important to address the issue of couple protection and contraceptive usage especially
following an induced abortion. There is need for awareness campaign about the complications of
medical abortion in media both news and television. The pre-abortion checkup and counseling will
help the woman decide her future course of action and enable her to have a good quality reproductive
life. It needs to be reiterated that prevention of pregnancy is much safer then abortion and repeated
abortions can harm the health of the women. The simplicity of spacing methods vis-a-vis medical
abortion needs to be highlighted. As per Mittal et al most methods of contraception can be safely
prescribed after medical abortion.\(^{(18)}\) Needless to say, abortions or unwanted pregnancies may be the
result of poor access to modern methods of contraception.\(^{(19)}\) National Family Health Survey (NFHS-3)
and the 2007–2008 District Level Household and Facility Survey (DLHS-3) show that contraceptive use
among married women is around \(55\%\).\(^{(20,21)}\) with the usage of a modern method of contraception only
in \(7\%\) amongst married women aged 15–19 and \(22\%\) of those aged 20–24 years. Low use of spacing
methods in the early years of reproductive life of a woman,\(^{(22)}\) has direct impact on total fertility. Barot
highlighted that poor access to safe abortion and to contraception services are two factors which play
an important role in increasing the incidence of unsafe abortions.\(^{(23)}\) Post-abortion counseling for
contraception is an important aspect of good quality abortion services.\(^{(24)}\)

In our study \(40.4\%\) of the women had undergone abortions earlier but still women resorted to
medical abortion in this pregnancy. \(61.42\%\) women with self-induced abortion did not accept effective
contraception in future. Among Group A 90% of the women had agreed to some method of contraception after repeated counseling.

If self-induced medical abortion continues to be prevalent it will have an impact on the health of the women. An opportunity to counsel these ignorant women on spacing methods will also be lost. Hence it is important to highlight that medical abortion is safe only under supervision, after confirmation of period of gestation and excluding the contraindications. The National training and service delivery guidelines for comprehensive abortion care\(^{(4)}\) which were introduced in 2010 stressed upon provision of pre-abortion counseling and three follow up visits including a discussion on contraceptive use plans for future. It is an opportunity to explain to the couple about the various methods available for limiting the family-size and importantly not go for repeated abortions.

There is a need to train the doctors as well in all settings private, in-service as well as chemists about the side effects, and contraindications of these abortifacent. The government is doing a lot to improve access to safe abortion services by training the in-service doctors in medical abortion. It is suggested that the RMPs may also be included in the process. It is important for the private practitioners to be informed that if they have a referral linkage with another centre then also they can prescribe the drugs for abortion. As per the MTP Act the referral linkage should be prominently displayed. It is felt that if the private practitioners are informed about the guidelines regarding medical abortion then the incidence of illegal abortion in India will be grossly reduced as this will increase the number of providers available close to the residence thereby increasing the convenience and safety to the clients.

**Sample Posters/Information Inserts in Abortion Pills Packet:**

1. Do you know the duration of your pregnancy?
2. Have you been examined by a Doctor to confirm the period of gestation?
3. Are you free from any medical illnesses such as anaemia or high blood-pressure?
4. Do you know where to go in case you have severe bleeding or pain abdomen after intake of these medicines?
5. Do you know what contraceptive method you will use to prevent recurrence of unwanted pregnancy?

**If the answer to any of the above is NO, Do not go in for medical abortion:**

- Abortion is safest when it is done in early pregnancy.
- Medical method of abortion is effective until 63 days (9weeks) only.
- Period of gestation has to be confirmed and ectopic pregnancy excluded by the doctor before taking these drugs.
- Post abortion care includes contraception counselling.

**CONCLUSION:** In India medical method of abortion is acceptable as well as easily accessible to the masses, however, knowledge regarding the correct usage of these drugs is not available. Most women resort to medical abortion because they believe it to be completely safe and feel it can be carried out in the privacy of their homes. Only when they have some complication they come to the hospital. They resort to abortion as an alternative to spacing method.

It is recommended that the knowledge regarding medical abortion be shared with health care providers in both government and non-government agencies.
The masses should be made aware of the perils of repeated abortion and of unsupervised administration of drugs for abortion. Chemists should be warned about the sale of these drugs without prescription so that incidence of unsafe and illegal abortions can be reduced.

**Table 1: Patient characteristics**

| Age   | An=20 | Bn=70 | Totaln=90 |
|-------|-------|-------|-----------|
| >20   | 1     | 2     | 3         |
| 20-25 | 7     | 47    | 54        |
| 26-30 | 6     | 8     | 14        |
| 31-35 | 4     | 6     | 10        |
| >36   | 2     | 7     | 9         |

| Parity | An=20 | Bn=70 | Totaln=90 |
|--------|-------|-------|-----------|
| nulliparous | 1 | 2 | 3 |
| 1      | 6    | 23   | 29        |
| 2      | 9    | 22   | 31        |
| 3      | 4    | 21   | 25        |
| 4      | nil  | 2    | 2         |

| Education | An=20 | Bn=70 | Totaln=90 |
|-----------|-------|-------|-----------|
| <8th class | 2     | 7     | 9         |
| 8th class  | 2     | 13    | 15        |
| 10th class | 4     | 12    | 16        |
| 12th class | 4     | 26    | 30        |
| Graduate or more | 8 | 12 | 20 |

| Previous induced abortion | An=20 | Bn=70 | Totaln=90 |
|---------------------------|-------|-------|-----------|
| none                      | 10    | 39    | 49        |
| Medical                   | 6     | 10    | 16        |
| Surgical                  | 4     | 21    | 25        |

| Contraception use in past | An=20 | Bn=70 | Totaln=90 |
|---------------------------|-------|-------|-----------|
| condoms                   | 10    | 8     | 18        |
| OCs                       | 2     | 4     | 6         |
| IUCD                      | 3     | 5     | 8         |
| None                      | 5     | 53    | 58        |

| Emergency contraception | An=20 | Bn=70 | Totaln=90 |
|-------------------------|-------|-------|-----------|
| used                    | 6     | 8     | 14        |
| Not used                | 14    | 62    | 76        |

Table 1: Patient characteristics
Study group

| Prescription made by      | An=20 | Bn=70 | Total n=90 |
|---------------------------|-------|-------|------------|
| Doctor                    | 20    | 3     | 23         |
| RMP                       | 0     | 16    | 16         |
| Chemist                   | 0     | 30    | 30         |
| Family friend             | 0     | 21    | 21         |

| Pre-abortion checkup/ investigation | An=20 | Bn=70 | Total n=90 |
|-------------------------------------|-------|-------|------------|
| done                                | 20    | 0     | 20         |
| Not done                            | 0     | 70    | 70         |

| Availability of approved health centre for MTP | An=20 | Bn=70 | Total n=90 |
|-----------------------------------------------|-------|-------|------------|
| >10km of clients residence/place of work      | 2     | 33    | 35         |
| Within 5-10 km of clients residence/place of work | 10    | 30    | 40         |
| <5-10 km of clients residence/place of work   | 8     | 7     | 15         |

Table 2: Factors Affecting Medical Abortion Outcome

| Study group                                      | An=20 | Bn=70 | Total n=90 |
|-------------------------------------------------|-------|-------|------------|
| Complete abortion                                | 20    | 34    | 54         |
| Continuation of pregnancy                        | 0     | 3     | 3          |
| PID                                             | 0     | 18    | 18         |
| RPOC                                            | 0     | 30    | 30         |
| Excessive Bleeding P/v requiring immediate suction evacuation | 0     | 5     | 5          |

Table 3: Outcome and Complications

#Reported with pain lower abdomen/bleeding P/V, positive pregnancy test (Done at home).

| Acceptance of contraception following abortion | An=20 | Bn=70 | Total n=90 |
|------------------------------------------------|-------|-------|------------|
| Tubectomy                                       | 1     | 1     | 1          |
| IUCD                                            | 2     | 1     | 3          |
| OCPs                                            | 2     | 5     | 7          |
| Inj DMPA                                        | 5     | 3     | 8          |
| Condoms                                         | 8     | 17    | 21         |
| None                                            | 2     | 43    | 45         |

Table 4: Acceptance of contraception following abortion

REFERENCES:
1. Stillman M et al., Abortion in India: A Literature Review, New York: Guttmacher Institute 2014.
2. Census India SRS Bulletin. Registrar general of India, Govt. Of India 2013.
3. Duggal R, Ramachandran V. The abortion assessment project-India: key findings and recommendations. Reprod Health Matters 2004 Nov; 12(24 Suppl):122-9.
4. Ministry of Health and Family Welfare, Comprehensive Abortion Care Training and Service Delivery Guidelines, New Delhi: Government of India, 2010.
5. Johnston H, Abortion Practice in India: A Review of Literature, Mumbai: Centre for Enquiry into Health and Allied Themes (CEHAT), 2002.
6. Handbook on Medical Methods of Abortion by Government of Madhya Pradesh and Ipas -MMA Reference Manual _21-02-2014.indd 20.
7. Hirve SS. Abortion law, policy and services in India: a critical review. Reprod Health Matters 2004; 12: 114–21.
8. Mundle S, ElulB, AnandA, Kalyanwala S, Ughade S. Increasing access to safe abortion services in rural India: experiences with medical abortion in a primary health center Department of Epidemiology, Columbia University, New York, New York, United States Contraception 08/2007; 76(1):66-70. DOI: 10.1016/j.contraception.2007.03.010. Source: Pub Med.
9. Coyaji K. Early medical abortion in India: three studies and their implications for abortion services. J Am Med Womens Assoc. 2000; 55(3 Suppl):191-4.
10. Von Hertzen, H, Honkanen H, Piaggio G et al WHO multinational study of three misoprostol regimens after mifepristone for early medical abortion. I: Efficacy BJOG: An International Journal of Obstetrics &Gynaecology. 110: (9), 808–818, September 2003.
11. Ganatra B, Manning V, Pallipamulla PS. Availability of Medical Abortion Pills and the Role of Chemists: A Study from Bihar and Jharkhand, India Reproductive Health Matters, 2005Nov; 13(26):65-74.
12. Lakkawar NJ. Et al –Attitude and experiences of young women towards medical abortion: A hospital based study. Sch J App Med Sci 2014; 2(6B):2034-2041.
13. World Health Organization. The prevention and management of unsafe abortion. Report of a http://whqlibdoc.who.int/hq/1992/WHO_MSM_92.5.pdf (accessed July 6, 2006).
14. Agarwal K, Malik S, Batra A, Dewan R, Aggarwal A. Evaluation of awareness of abortion pills and complications of its misuse. JIPRVol 5 | Issue 3| 2015 | 148-151.
15. Elul B, Hajri S, Ngoc NN, Ellertson C, Slama CB, Pearlman E, Winikoff B. Can women in less-developed countries use a simplified medical abortion regimen. The Lancet 2001; 357(9266):1402-1405.
16. FialaC, Winikoff B, Helstrom M, Gemzell-Danielsson K, Acceptability of home-use of misoprostol in medical abortion. Contraception 2004 Nov; 70(5):387-92.
17. Bracken H, Home administration of misoprostol for early medical abortion in India,Intl J Gynaecol Obstet. 2010 Mar; 108(3):228-32. DOI: 10.1016/j.ijgo.2009.09.027. Epub 2009 Nov 27.
18. Mittal S-,Contraception after medical abortion, Contraception 2006 Jul;74(1):56-60. Epub 2006 Apr 27.
19. Park K. Text Book of Preventive and Social Medicine. 22nd edition. Jabalpur. M/S BanarsidasBhanot; 1997.p.468.
20. NFHS 3-National Family Health Survey :India Indian Institute of Population Sciences Mumbai 21. IIPS, District Level Household and Facility Survey (DLHS-3), 2007–08: India, Mumbai: IIPS, 2010.
22. Chandhick N, Dhillon BS, Kambo I, Saxena NC. Contraceptive knowledge, practices and utilization of services in the rural areas of India (an ICMR task force study). Indian J Med Sci 2003; 57:303.
23. Barot S. Unsafe Abortion: The Missing Link in Global Efforts to Improve Maternal Health. Guttmacher Policy Review Spring 2011, Volume 14, Number 2.

24. World Health Organization (WHO), Safe Abortion: Technical and Policy Guidance for Health Systems, Geneva: WHO, 2003.

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