

## Profile of Medical Abortion Seekers from a Teaching Institute in North Eastern India

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### Abstract

*Introduction:* Medical termination of pregnancy has been legalized in India for over four decades since the MTP Act was passed in Indian parliament in 1971 to safe guard the health of the mother yet unsafe abortion continues to be responsible for 13% of maternal mortality. Medical abortion is the method to terminate pregnancy by using mifepristone and misoprostol tablets by giving them at 48 hours interval. As per WHO it a safe and effective method upto 9 weeks (63 days) of gestation. Awareness and attitude about medical abortion amongst the general population are not documented extensively. This study was carried out to gauge the knowledge, attitude and practice of medical abortion and also the socio-demographic profile of women seeking abortion in a teaching institute in the north eastern part of India. *Materials and Method:* This prospective study included 220 women who opted for medical abortion from September 2015 to February 2017. All the information regarding age, religion, residence, income, socioeconomic status, education of both partners, occupation, parity, history of previous MTP (medical or surgical), awareness and utilisation of routine and emergency contraception, awareness about medical abortion, gestational age at present pregnancy, indication of MTP, person taking decision for MTP, was

taken on a pre-structured format. *Result:* During the study period 220 women opted for medical abortion. Majority of the women (66.8%) were between 25-34 years age group. Mean age in years was  $28.1 \pm 4.76$  and mean parity was  $1.8 \pm 1.28$ . Previous history of abortion was present in 45%. Only 20.4% (45) women were aware about medical abortion. Most common indication of MTP were completed family (30%) and spacing (23.2%). Pre and post procedure contraceptive uses were 39% and 45%. Majority of women were Hindu (68.2%), married (84.1%), housewives (72.7%), residing in urban area (61.4%), less educated and belonging to a lower socioeconomic status (70.3%). *Conclusion:* According to the present study, women in younger age group, Hindu by religion, married, housewives, residing in urban area, less educated and belonging to a lower socioeconomic status are more likely to seek for abortion. In our study women who were initially unaware of medical abortion opted for medical abortion after proper counselling and had high success rate. Increasing the knowledge of the safety and effectiveness of medical abortion in general population with special attention targeting this vulnerable population would be a major step towards our goal of population control and ensuring safe abortion.

**Keywords:** Medical Abortion; First Trimester; Mifepristone; Misoprostol; Demographic.

### Introduction

Population of India is 1.2 billion at present and it is projected to reach 1.53 billion by the year 2050. This will make India the most populous country in the world [1]. To

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Received on 18.04.2017,  
Accepted on 09.05.2017

stabilize the population, net reproduction rate (NRR) should be one that can be achieved if couple protection rate reaches 60 [1]. Various studies showed that in spite of the awareness about contraceptives, regular use of contraception is very low in India leading to a huge burden of unwanted pregnancies. In India, about 6 million abortions takes place every year, out of which 4 millions are induced [1,2]. Of these 4 million, two third of all abortions take place outside authorized health services. Only 10% are conducted under safe and hygienic conditions [2]. To prevent unwelcomed pregnancy regular use of contraception is recommended but medical termination of pregnancy (MTP) can come as rescue if contraception fails. Therefore MTP is not only one of the important tools of family planning but it is also woman's reproductive right. In spite of liberalization of MTP septic abortion is responsible for 13% of maternal mortality [2]. Provision of abortion services is an important tool for the reduction of maternal mortality and morbidity. Medical abortion is the method to terminate the pregnancy by using mifepristone and misoprostol tablets by giving them at 48 hours interval. As per WHO medical abortion is a safe and effective method upto 9 weeks (63 days) of gestation [3]. Awareness and attitude about medical abortion amongst the general population are not documented extensively. This study was carried out to gauge the knowledge, attitude and practice of medical abortion and also the socio-demographic profile of women seeking abortion in a teaching institute of north eastern part of India.

#### *Aims and Objectives of the Study*

1. To find out the socio-demographic characteristics of women seeking medical abortion.
2. To gauge the knowledge, attitude and practice of medical abortion
3. To assess their contraceptive behaviour pre and post medical abortion.

#### **Materials and Methods**

This prospective, cross sectional, time bound study done in the department of obstetrics gynecology in one of the teaching institute of North eastern India from September 2015 to February 2017. We included all the women who opted for medical abortion in this period. Our inclusion criteria were women who opted for medical abortion as per MTP act up to 9 weeks, gave consent and willing to share the information. Our exclusion criteria were women not willing to

participate in questionnaire process, women who opted for surgical abortion, contraindications to the use of mifepristone and misoprostol. When woman came for abortion, after examination and investigation if she is fit for medical abortion then counselling done for medical abortion. For women who opted for medical abortion during study period, a detailed history was taken including age, religion, residence, income, socioeconomic status, education of both partners, occupation, parity, history of previous MTP (medical or surgical), awareness and use of routine and emergency contraception, awareness about medical abortion, gestational age of present pregnancy, indication of MTP, person taking decision for MTP. This information was taken on the structured preformed questionnaire. Ethical clearance was obtained from Institutional Ethical Committee. Written and informed consent was taken from the patient after proper counselling about other options and the details of the procedure.

#### *Statistical Analysis*

The data were collected and analysed. Calculation of percentage, mean, proportion was done for descriptive purpose. Chi-Square test was done to evaluate the pre and post contraceptive behaviour.

#### **Result**

During the study period 220 women who fulfilled the inclusion criteria and who opted for medical abortion were included. Table 1 depicts distribution of age, marital status, religion, residence, occupation, education of both partners and socioeconomic status. Mean age (in years) of women was  $28.1 \pm 4.76$ . Forty four percent of women were from Meghalaya and greater percentage (55%) of women belonged to other states. Majority of them belonged to class III and IV of Kuppaswamy's socioeconomic scale. Most of them were Hindu by religion (68.2%), from urban background (61.4%) and had lower level of education with 38.6% being illiterates.

Clinical data summarized in Table 2. Out of 220 women 99 (45%) had history of induced abortion in the past. Mean parity was  $1.8 \pm 1.28$ . Previous history of abortion was present in 45% (99) of women and 11.4% (25) of these women had two or more abortions. Awareness of medical abortion was present in 20.5% (45) of women. Majority of the women became aware of medical abortion from friends (25), others from relatives (7), pharmacist (10) and doctor (3). Of these 45 women only 12 women had medical abortion previously. All women (100%) knew about one or

other forms of contraception but 60.9% women were not using any form of contraception. More reliable method of contraception i.e. IUCD and OCP were used by only 13 (5.9%) women. Knowledge of emergency contraceptive was in 44 (20%) women but it was used by only 11(5%) women. In majority of women indication of MTP was completed family (30%) or short interval since last child birth (23.2%) (Table 3).

Contraceptive failure was the indication in 20% of women. In 60% of cases decision for MTP was taken by husband and in 35% cases it was a joint decision of the couple. Excessive pain (40%) was the most common side effect followed by nausea, vomiting and diarrhoea (25%) (Table 4). Heavy bleeding was present in 20% of women but none required admission or blood transfusion for any of these complications.

**Table 1:** Socio-demographic profile of women opting for medical abortion (N=220)

Variables	N=220	Number (Percentage)
Age (years)	15-24	55 (25%)
	25-34	147 (66.8%)
	35-44	18 (8.2%)
Marital status	Married	185 (84.1%)
	Unmarried	24 (10.9%)
	Widow/ Separated	11 (5%)
Religion	Hindu	150 (68.2%)
	Christian	48 (21.8%)
	Muslim	9 (4.1%)
	Indigenous	13 (5.9%)
Residence	Urban	135 (61.4%)
	Rural	85 (38.6%)
Education of women	Illiterates	85 (38.6%)
	Upto high school	75 (34.1%)
	Above high school	60 (27.3%)
Education of partner	Illiterates	46 (20.9%)
	Upto high school	88 (40%)
	Above high school	86 (39.1%)
Occupation of women	Home maker	160 (72.7%)
	Student	26 (11.8%)
	Working	34 (15.5%)
Socioeconomic status (By Kuppuswamy's scale)	I	25 (11.4%)
	II	28 (12.7%)
	III	115 (52.3%)
	IV	44 (20%)
	V	8 (3.6%)

**Table 2:** Clinical profile of women opting for medical abortion

(N= 220)

Variable		Number (Percentage)
Parity	P0	35 (15.9%)
	P1	60 (27.3%)
	P2	86 (39.1%)
	≥P3	39 (17.7%)
Gestational age (Present Pregnancy in weeks)	≤7 week	124 (56.4%)
	>7weeks	96 (43.6%)
Type of previous contraceptive use	None	134 (60.9%)
	Barrier	40 (18.2%)
	OCP	11 (5%)
	IUCD	2 (0.9%)
	Others (natural method)	33 (15%)
History of MTP	Injectables	0(0%)
	Yes	99 (45%)
	Surgical	87 (39.5%)
Knowledge of emergency contraceptives	Medical	12 (5.5%)
	No	121 (55%)
	Yes	44 (20%)
Knowledge of medical abortion	No	176 (80%)
	Yes	45 (20.5%)
	No	175 (79.5%)

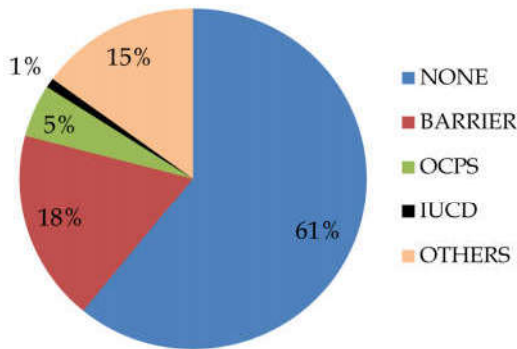
**Table 3:** Indications of MTP

Indications of MTP	Number of Patients (Percentage)
Completed family	66 (30%)
Birth spacing	51 (23.2%)
Contraceptive failure	44 (20%)
Financial reasons	31 (14.1%)
Social reasons	28 (12.7%)

**Table 4:** Outcome of medical abortion (N=220)

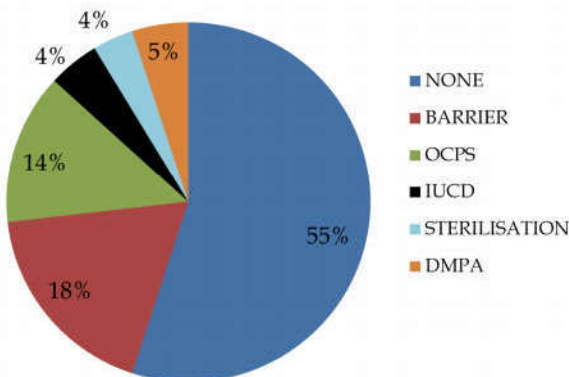
Variable	Number (percentage)	
Outcome	Complete abortion	209 (95%)
	Incomplete abortion	11 (5%)
	Missed abortion	0 (0%)
	Continuation of pregnancy	0 (0%)
Duration of bleeding per vagina	≤7 days	184 (83.6%)
	>7day	36 (16.4%)
Adverse effects	Excessive pain	88 (40%)
	Nausea /Vomiting /Diarrhoea	55 (25%)
	Excessive bleeding per vagina	44 (20%)
	Headache, Dizziness	0 (0%)
	Fever	0 (0%)
Subsequent use of contraception	Sterilization	8 (3.6%)
	IUCD	10 (4.5%)
	DMPA	11 (5%)
	OCP	30(13.6%)
	Barrier	40 (18.2%)
	None	121 (55%)

**Pre Abortion Contraceptive Use**



Pie chart 1:

**Post Abortion Contraceptive Use**



Pie chart 2:

Success rate was 95%. Out of 11(5%) women who had incomplete abortion only 6 required surgical evacuation and rest managed conservatively. Post MTP contraceptive coverage increased from 39.1% to 45% (p value 0.246) which is not statistically significant (Pie Chart 1,2). However, the effective form of contraception (OCP, DMPA, IUCD and sterilization) has increased from 13 to 59, p value being 0.0001 which is statistically significant. The most accepted form of contraception however continued to be the barrier method which is not a very reliable form of contraception. The main reason for denial of contraception was husband preventing from any contraceptive use (40%), others being fear about contraceptives and indecisiveness regarding the appropriate contraceptive method to adopt.

**Discussion**

Even though abortion has been legalized in India for over four decades since the MTP Act was passed in the Indian parliament in 1971 to safe guard the health of the mother, unsafe abortion continues to be responsible for 13% of maternal mortality [2]. The main reasons behind unsafe abortion being lack of awareness of available abortion facility, social stigma, non-accessibility of abortion facility, attitude of abortion provider or fear. Promotion and utilization

of medical abortion services under medical supervision may decline the rate of unsafe abortion. Use of mifepristone (200mg) and misoprostol (800 microgram) combination for medical abortion is an effective, safe and non-invasive method [3]. FOGSI has also approved this regimen upto 63 days of gestation under medical supervision.

In the present study similar to other studies majority of women seeking abortion belonged to age group 20-35 years [4,5,6,7,8,9]. Peak sexual activity in this age group signifies the importance of contraceptive coverage in them.

Majority of the medical abortions were done due to completed family and short interval since last child birth as in other studies [4,5,6,9]. Casual attitude and lack of motivation towards contraceptive practice explains this finding. Contrast observation was seen in one study where low parity was associated with medical abortion [7]. In spite of completed family and short interval since last child the mean parity in our study is 1.8 which also reflects a sizeable number of unmarried nulliparous women (11.8%). It is in contrast to other studies where percentage of unmarried women were less. In the study by Shrivastava et al. 97.6% women and by Dhumale et al. all women were married [4,5]. Usually unmarried abortion seekers preferred private sectors where privacy and confidentiality are maintained. In Meghalaya on religious grounds no other public or private sector provides abortion facility except our hospital.

Majority of women belonged to low socioeconomic status and had lower education level similar to other studies [4,5,6,7,9,10,11]. Higher education level may be associated with increased awareness and access to contraceptive use and are probably less likely to seek medical service from government hospitals.

Most of the women (83.6%) presented before 7 weeks of gestation. It indicates increased awareness to access abortion services in early pregnancy [5].

Most common indication of MTP was unintended pregnancy either due to completed family or short interval since last child birth which is similar to other studies [4,7,9]. But in one of the studies most common indication was socioeconomic constrain (39.8%) [10]. Contraceptive failure was the indication in 20% cases which is comparable to other studies [7]. But this is in contrast to two other studies wherein 38.1% and 43.3% cases of abortion indication was failure of contraceptive [5,12]. It implies very less adoption of contraceptive method in spite of completed family or need for spacing. Each of the women was aware of one or the other methods of contraception. However there is a huge gap between awareness and regular

use of contraceptive. It has been documented that where the usage of modern contraceptive method is high, the incidence of induced abortion is low [3]. Therefore when women come to access abortion facility; it is an opportunity for health care provider to counsel and motivate them for contraceptive use to avoid next unplanned pregnancy. But acceptance of post abortion contraception should not be a condition for providing abortion services as it may lead woman to seek for illegal abortion.

Awareness about medical abortion was quite low (20.5%) as compare to other study where awareness about medical abortion was about 92.5% but use was 17.5% [7]. Majority came to know about medical abortion from friends (25), others from relatives (7), pharmacist (10) and doctor (3) as in other studies [7]. None had complete or adequate information regarding drugs, dosage, side effects and complications of medical abortion. Among 12 women who took abortion pill previously, 9 took it from pharmacist and only 3 women took it from registered medical practitioner. Seven women who took this medication from pharmacist had heavy bleeding and underwent surgical evacuation. It means medicine taken from an unauthorized person can lead to complications and it will have negative impact about this modality amongst users. Therefore it is necessary for the policymakers and health workers to increase awareness about this safe and non-invasive modality of abortion amongst general population.

In various studies post abortion contraceptive use was quite high [5,6,8,9,10,13]. In the present study post abortion contraceptive acceptance (45%) was not very good as compared to studies by Shrivastava et al (67.1%) and Yadav A et al (94.4%). It could be because abortion and contraception was not given in the same sitting unlike surgical abortion. In many women husband resisted for the use of post abortion contraception. In such cases counselling of couple may lead to acceptance of contraception. Forty percent women did not turn up for follow up for contraception. This behaviour makes them vulnerable to be pregnant again and expose them to another abortion. Overall awareness about emergency contraceptive was less and use of emergency contraceptive still lesser [6]. Young and educated women were more aware about emergency contraception. Emergency contraception has a definitive role in family planning programme. There is a need to increase its awareness and sensitivity among general population.

According to present study, women in younger age group, Hindu by religion, married, housewives, residing in urban area, less educated, from lower

socioeconomic status, are more likely to seek for abortion and in spite of unawareness about medical abortion, with proper counselling they opted for medical abortion facilities.

There is a dire need to increase awareness and to counsel and motivate eligible couple to adopt one of the effective forms of contraception to avoid unwanted pregnancy. Also to avoid illegal abortion, there is emergent need to increase knowledge about medical abortion and its safety under medical supervision amongst general population. Study on the feasibility of the use of medical abortion at primary health care level can be an area of research.

Limitation of present study lies in the fact that it is single centre study with small number of participants.

#### *Abbreviations*

MTP- Medical Termination of Pregnancy, IUCD- Intrauterine Contraceptive Device, OCP-Oral contraceptive pills, DMPA-Depot Medroxy Progesterone Acetate.

#### **Conclusion**

According to the present study, women in younger age group, Hindu by religion, married, housewives, residing in urban area, less educated and belonging to a lower socioeconomic status are more likely to seek for abortion. In our study, women who were initially unaware of medical abortion opted for medical abortion after proper counselling and had high success rate. Increasing the knowledge of the safety and effectiveness of medical abortion in general population with special attention targeting this vulnerable population would be a major step towards our goal of population control and ensuring safe abortion.

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