**Original Research Article**

**Trends in abortion services and sociodemographic profile of women those availed abortion services at Parivar Seva clinics in India**

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**ABSTRACT**

**Background:** Despite the law for termination of pregnancy, women continue to have illegal or unsafe abortions leading to incomplete abortions in India. The aim of the paper is to identify the trend of abortion services, clients treated for safe and incomplete abortion their client characteristics in the Parivar Seva Sanstha clinics.  

**Methods:** Retrospective analysis of the available data from 31 Parivar Seva clinics India. Retrospective study carried out in 31 clinics of the Parivar Seva Sanstha in 11 states. Data of women who were treated for medical termination of pregnancy (MTP) and other abortion between the periods of January 2018 to December 2019 was obtained from the records for analysis. Proportion of MTP and other abortion for different categories was computed and Chi square test was applied to study the association.

**Results:** More than forty thousand women availed abortion services from the clinics every year. The frequency of incomplete abortion increased from 34.7% to 38.1% from 2018 to 2019. Young women, women of Muslim religion, higher income group, who reached the clinics from long distance, with no parity and no previous history of abortion had more probability of availing services for incomplete abortion as compared to MTP. Majority of women were seeking MTP and incomplete abortion services in their first trimester only; about two thirds (61.4% and 66%) of these had surgical abortion in first trimester. Majority (86.1% and 87.5%) of women obtained MTP services up to 12 weeks of gestation.

**Conclusions:** There is urgent need to create awareness and educate the women regarding safe abortion, access of family planning, legality of abortion, medication outside the health facilities.

**Keywords:** MTP, Incomplete abortion, Unsafe abortion, Medication abortion

**INTRODUCTION**

Termination of pregnancy in India is legalized under the MTP Act since 1971 under the broad criteria. Earlier, surgical methods were used; however, with the introduction of various drugs, termination can also be done with medications and is legalized under the amended MTP act (2002).¹ However, access to safe and legal abortion services remains poor in our country. According to WHO Medical abortion are safer methods of termination of pregnancy as compared to dilatation and curettage.²

Unsafe abortion in India is commonly carried out by women self-administering unapproved and typically ineffective drugs or taking approved drugs incorrectly; these types of abortion attempt often result in incomplete abortion and further complications.³

Abortions with drugs (MA) using a combination of Mifepristone and Misoprostol, is a safe, efficient, acceptable, and approved method of MTP up to 9 weeks (63 days) of gestation, which should be provided by a trained allopathic provider of comprehensive abortion care services.¹ Despite the guidelines, self-administration

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of combi pack of MA drugs which is acquired from chemist and untrained providers without trained health professional’s prescription is a common method of abortion in India.4 Medicine taken from untrained providers and chemist may cause morbidity due to method failure and incomplete abortion and incorrect use of MA.3 Other than consumption of MA drugs, incomplete abortion can occur due to spontaneous abortion, miscarriage, prolonged or abnormal bleeding, infection of the uterus, intra uterine fetal death (IUD) etc.6,7 Incomplete abortion contributes significantly to mortality and morbidity, affecting subsequent fertility and causing psychological distress.8 Abortions, be it spontaneous or induced, are most common adverse outcome of pregnancy.

Recent estimates reveal that approximately 15.6 million abortions took place in India in 2015 and about 22% were provided by health facilities, with 11.5 million (73%) being MA performed outside the health facilities. About 0.8 million (5%) abortions were done outside of health facilities using methods other than MA which have a higher probability of health complications compared with MA.4 In 2015, abortions accounted for one-third of all pregnancies in India, and nearly half of these pregnancies were unintended.4

67,000 women die each year from untreated or inadequately treated abortion complications mostly in developing countries.9 In India, maternal mortality ratio is unacceptably high at 113 per 100,000 live births (SRS bulletin 2015-17) and unsafe abortions account for 8% of the maternal mortality.10,11

Severe complications from unsafe abortion, if left untreated, contribute to maternal morbidity, and sometimes to long-term disability and maternal mortality by Banerjee et al and Singh et al.16,17

Despite the law, clear guidelines and the risk associated with abortion against the law, women continue to have illegal or unsafe abortions leading to incomplete abortion in India.

The aim of this retrospective analysis is to identify the trend of abortion services, and those treated and managed for safe induced abortions (as per MTP act) and incomplete abortions, as also their sociodemographic profile in the Parivar Seva clinics in India.

**METHODS**

The present study was a retrospective analysis of the available data from 31 Parivar Seva clinics India. The Parivar Seva clinics are run by Parivar Seva Sanstha-a NGO, professionally managed and active since 1978. The clinics provide a range of quality, affordable reproductive health services and products in 11 states in India within legal framework of MTP Act 1971, located in 11 states.

The detailed information of the registered women for various reproductive and sexual health services including comprehensive abortion care, provided by the clinics were sent in the form of monthly performance report (MPR) to support office of Parivar Seva Sanstha at New Delhi on monthly basis. The complete data was entered in the excel sheet after cross verification by the concerned supervisors (both medical and non-medical) and a master data sheet is maintained by MIS officers.

In the present study, the details of women who were treated for MTP and other abortion due to interference outside health facility to induce abortion (Medication/non-medication), or in the process of spontaneous expulsion, missed abortion, intra uterine fetal death (IUD), or blighted ovum between the periods of January 2018 to December 2019, was obtained from the master sheet for analysis.

**Analysis**

The proportion of MTPs and other abortions for different categories of variables was computed for analysis. Chi square test was applied to study the association between the two types of abortion and socio-demographic variables.

**RESULTS**

The trends of total number of abortions done per year from 2015 to 2019 is shown in Figure 1, which shows more than forty thousand women availed abortion services from the registered Parivar Seva clinics every year. However, the total number of abortion cases were found to be on decreasing trend from 44459 to 41583 in 2015 and 2016, then 1652 cases increased in 2017, thereafter deceased in 2018 (41,658) and 2019 (40312).
MTP and other abortion status in last two calendar years (2018 and 2019)

Trend of abortion services

A total 81,970 women availed services at 31 Parivar Seva clinics for MTP and other abortion in the last 2 calendars years (Table 1). The total number was slightly higher in 2018 as compared to 2019 whereas other abortion clients was higher in 2019. Overall, 63.5% of women availed MTP services and 36.4% were treated for other abortions. The frequency of other abortion was higher in 2019 (38.1%) as compared to 2018 (34.7%).

Socio-demographic profile of the acceptors for comprehensive abortion care services

Table 2 shows the socio demographic characteristics of the women availing services at 31 Parivar Seva clinics for MTP and others abortion.

Age: The proportion of younger age group women seeking services for other abortion was significantly more as compared to those for MTP services (p<0.05). The odds for other abortion were maximum in women less than 18 years and decreased with age and least in women more than 30 years of age.

Religion: Majority of the women attending the clinics were Hindu by the religion while approximately 18.3% were Muslims while 1.1% were from other religions. The services of availing other abortion were 1.2 times more in Muslim women as compared to Hindus.

Distance: Almost 60% the women reached the clinic from up to 10 km of distance for abortion service while 40% were from more than 10 km. However, the women availing other abortion were 1.1 times higher, who reached the clinics from long distance.

Income: More than half (51.7%) of the women who availed MTP service belonged to lower income group (up to Rs. 10,000/month) whereas 57.4% women who availed other abortion belonged to higher income group (more than Rs. 50,000/month). However, the women availed services for other abortion was 38.3 times more in those belonging to higher income group as compared to lower income group.

Parity: The proportion of women with no parity seeking services for other abortion were significantly more as compared to those for MTP services (p<0.05). The odds for other abortion were maximum in women with no parity, which decreased with number of children and least in women who had 5 and more than five children.

H/O past abortions: More than half of the women who presented for MTP (51.6%) and other abortion (56.8%) had no previous history of abortion and first time reached for abortion service in the registered clinics. However, women availed services for other abortion was higher as compared to those who had a greater number of abortions.

Table 1: Total number of abortions done in 2018 and 2019.

| Abortion status       | 2018 |   | 2019 |   | Total |   |
|-----------------------|------|---|------|---|-------|---|
|                       | N    | % | N    | % | N     | % |
| MTP                   | 27189| 65.3| 24938| 61.9| 52,127| 63.5|
| Incomplete abortion   | 14469| 34.7| 15374| 38.1| 29,843| 36.4|
| Total abortion        | 41658| 100| 40312| 100| 81,970|    |

Table 2: MTP and incomplete abortion in association to socio demographic factors.

| Categories       | MTP   | OA   | Total | Odd ratio |
|------------------|-------|------|-------|-----------|
|                  | N     | %    | N     | %        |          |
| Age (year)       |       |      |       |          |          |
| Below 18         | 110   | 0.2  | 105   | 0.4      | 215      | 1.00    |
| Above 18-25      | 14017 | 26.9 | 9289  | 31.1     | 23306    | 0.69    |
| Above 25-30      | 19718 | 37.8 | 11915 | 39.9     | 31633    | 0.63    |
| Above 30         | 18282 | 35.1 | 8534  | 28.6     | 26816    | 0.49    |
| Total            | 52127 | 100  | 29843 | 100      | 81970    |          |
| p<0.05           |       |      |       |          |          |
| Religion         |       |      |       |          |          |
| Hindu            | 43552 | 83.5 | 24039 | 80.6     | 67591    | 1.00    |
| Muslim           | 7939  | 15.2 | 5466  | 18.3     | 13405    | 1.25    |
| Others           | 636   | 1.2  | 338   | 1.1      | 974      | 1.11    |
| Total            | 52127 | 100  | 29843 | 100      | 81970    |          |
| p<0.05           |       |      |       |          |          |

Continued.
Figure 2: Trimester wise abortion status.

Gestation wise trends of acceptors

Figure 2 shows gestation wise break up of women. In both the calendar year, majority of women seeking MTP and other abortion services were in their first trimester only. However, the frequency of medical termination of pregnancy (87.2%) and other abortion (95.4%) was slightly higher in 2019 as compared to 2018 (85.7% and 94.3%). In second trimester, 14.3% in 2018 and 12.8% in 2019 women had medical termination of pregnancy.

Similarly, 5.7% and 4.6% women were treated for other abortion in 2018 and 2019 respectively.

Sources of referrals

Table 3 shows information about source of referral. Maximum (35.5%) women were referred by doctors (64.4%) and chemist (35.6%) for the services in the registered clinics. One third (32.3%) of them were either revisited or advised by friends/neighbour/relative and 30.7% of them were advised by community health workers where ASHA (72%) played an important role other than ANM, AWW and other community-based promoters. Only 1.6% of them said they were influenced by media (newspaper/ hoarding/ banners and clinics websites).
DISCUSSION

The retrospective analysis of data from 31 Parivar Seva clinics across 11 States in India shows that more than forty thousand women availed abortion services each year. Although slight variation was observed in terms of cases of abortion services in the last five years from 2015 to 2019. The caseload showed a declining trend from 2017 to 2019. This may be due to easy availability of abortion medicine illegally at the chemist’s counter or availability of abortion services at other near sites. According to ministry of health and family welfare, 621000-770000 abortions were recorded each year for the past 15 years. The most recent data are from 2014-2015, when 701415 were recorded. This figure shows that the NGO contributes to a significant proportion of abortion services in India. According to the national family health survey-4 conducted in 2015-2016, abortions accounted for 3.4% of the total pregnancies in India.

Although the total number of abortions was slightly higher in 2018 as compared to 2019, number of cases for other abortion was increased by 3.4% in 2019 as compared to 2018 This indicates that despite the 50 years of liberal legislation, women are seeking abortion services with medication and other means outside the safe and registered legal health facilities. Many past studies also indicates that high proportion of postabortion patients are treated for incomplete abortion from use of medication abortion and spontaneous abortion and prolonged or abnormal bleeding.

The present study corroborates the findings of national survey as well as other studies which have reported a higher rate of induction of abortion among older age groups. However, the proportion of younger women (less than 18 years) seeking services for incomplete abortion was significantly more as compared to medical termination of pregnancy. Study conducted by Banerjee et al showed that women with complications of spontaneous abortion were significantly younger than women with complication due to induced abortion. Another study done by Yokoe indicated that the adjusted odds of unsafe abortion were 13% higher for the younger women (20-24 years), and 18% lower for older women (35-39 and 40-44 years).

Majority of abortion seekers were from the Hindu religion. However, the incidence of availing services for incomplete abortion was 1.2 times more in Muslim women as compared to Hindus. Similar finding was observed in another study also, where it was indicated that the Muslim, Christian, or ‘other’ stated religion were associated with increased odds of unsafe abortion compared with those belonging to the Hindu religion.

Economic status and distance from the health facility, were two significant factors affecting choice of women for safe abortion has been reported by previous studies. According to national family health survey (NFHS-4) 20% of the women aborted their pregnancy at home because the distance to the health provider was an issue for them.

Availability of health facilities with minimum cost within a short distance not only assists access to safe abortion services to the women, but also reduces the financial burden due to long distance travel and other expenses. In the present study most of women visited clinics for seeking services for MTP and other abortion were from within 10 km of distance. However, the incidence of availing services for other abortion was 1.1 times higher among women who visited the clinics from a longer distance. Similarly, poor women availed MTP services more often from the clinics, while the incidence of availing services for other abortion was 38.5% times more among women belonging to higher income group compared to lower income groups. In contrast, other studies have reported that women who presented for other abortions were 68% poor, 19% middle income, and 13% rich. According to another study, poorer women (in the lowest asset index quintile) had 45% higher odds of unsafe abortion, compared with women in the highest quintile. In these studies the majority of the women visited illegal or unqualified providers for induced abortion in the area due to non-availability of services and lack of awareness of the methods and their complications.

Table 3: Source of referral.

| Source of referral | MTP | Incomplete abortion | Total |
|--------------------|-----|---------------------|-------|
|                    | N   | %   | N    | %    | N  | %   |
| Media              | 960 | 1.8 | 346  | 1.2  | 1306 | 1.6 |
| Revisit/advised by | 17362 | 33.3 | 9075 | 30.4 | 26437 | 32.3 |
| friends/ neighbour/relative | 16960 | 32.5 | 12139 | 40.7 | 29099 | 35.5 |
| Community health workers | 16865 | 32.3 | 8263 | 27.7 | 25128 | 30.7 |
| Total              | 52147 | 100 | 29823 | 99.9 | 81970 | 100 |

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More than half (MTP-55.2% and other abortion-56.1%) of the women who received abortion services had one to two children. However, the proportion of women with no parity seeking services for other abortion was significantly more as compared to those for MTP. Result from a previous study concluded that women who had no children had 30% odds of having unsafe abortion compared with women who have one to three children.15

Similarly, the proportion of women that had previously undergone abortion (one and more than one) declined 5.2% in 2018-2019 however, the incidence on other abortion was higher among women who had no history of past abortion as compared to MTP. That means women who reached for repeated abortion were not aware about the risk associated with repeated termination of pregnancy. The similar observation was noted in other studies also.23-25 The young married women with no parity and the women who had received an abortion services in past should be counselled for family planning, contraceptive and risk associated with repeated abortion.

As per national family health survey and other studies the present study also shows that majority of women presenting for abortion care (MTP-85.5% and 87.2% and treatment for other abortion-94.3% and 95.4%) reported within 12 weeks of gestation in both the calendar years.17,18,20,25,26 However, this study found that the proportion of women seeking services for other abortion at the age of 8-10 weeks of gestation was more as compared to those for MTP. This may be due to the fact that abortion with drugs, which should be used within 9 weeks of pregnancy to be effective, was not adhered. Gestation age at the time of abortion is one of the strongest risk factors for abortion related mortality.27,28

Source of information for registered health facility for abortion play a major role in seeking safe abortion care to the women. In the present study most (35.5%) of women were referred to the clinics by the doctor and chemist for MTP and treatment of other abortion. Most probably first they approach the chemist and untrained illegal providers for medication abortion once abortions fail, they are referred to the clinics for abortion. Consumption of drugs for abortion from pharmacists and untrained providers without proper prescription is a common practice in India.31,6 Similarly, 30.7% women were referred by community health workers for termination of abortion in the clinics. The finding is supported by previous studies where it is suggested that there is potential for a great role on part of community health workers in supporting women’s access to safe abortion services, although they don’t perform abortions, they have the opportunity to help those who want to terminate a pregnancy and find needed services.14,32

CONCLUSION

This study suggests that despite the MTP act and standard guidelines, a significant proportion of women had availed services for other abortion at the clinics. It had also found that the incidence of other abortions was associated with younger age group, Muslim religion, coming from long distance, higher income groups, no parity and no past abortion.

There is urgent need to create awareness and educate the women regarding prevention of unwanted pregnancies through access of family planning, legality of abortion, medication outside the health facilities specially use of MA combo pack to reduce unsafe abortion with associated morbidity and mortality. Chemist/pharmacist should be trained for not to provide medical abortion pills without proper prescription from an abortion trained doctor and also guide the clients correctly regarding the consumption of MA combo pack. Community health workers who are fist connect point in the community need to be educated about safe abortion and post abortion care.

This analysis provides information to government of India that non-governmental organisation (NGO’s)’s clinics are providing safe and legal abortion services in order to reduce the abortion related morbidity and mortality that will contribute for women health and the survival in India.

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