MEDICAL TERMINATION OF PREGNANCY: SIX YEARS STUDY OF THE TREND AND PROFILE OF THE CLIENTS IN A METROPOLITAN PUBLIC HOSPITAL

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ABSTRACT

BACKGROUND

To increase the incidence of safe and legalised abortions, it is important to know the clients. This study is a 6 years research of the records of MTP performed at the public hospital attached to a medical college, to know the trend, socio-demographic and obstetric status of the women undergoing MTP.

The objectives of the study were to find trend, sociodemographic factors, obstetric status and complications of MTPs.

MATERIALS AND METHODS

A study of the records of all the MTP operations performed at the gynaecology department of the hospital from 2010 to 2016. Data analysis was done on MS excel.

RESULTS

Most women who underwent MTP were young, sexually active women and had completed 2 child family. Along with MTP, younger women preferred IUCD and elder women preferred Tubal Ligation as contraception. There is an overall gradual increase in the incidence of MTPs conducted which could be attributed to increase in population of the city and nearby areas.

CONCLUSION

In this study, most of the women preferred MTP after 2nd Pregnancy and at the age of 21-35 years. Most women accepted permanent method of sterilization after MTP shows that women had completed family by the age of 30 years and had no access to effective contraceptive services. MTPs thus seems to be used as an emergency treatment for failed contraception. This trend should be discouraged but at the same time safe abortion should be legalised to safeguard the health of the women.

KEYWORDS

Medical Termination of Pregnancy, MTP, Tubal Ligation, Trend, Obstetric Status, Socio Demographic Profile.

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BACKGROUND

Medical termination of pregnancy is defined as "wilful termination of pregnancy before the age of viability of the foetus (20 weeks for all practical purposes) under any grounds within the act of medical termination of pregnancy".[1] Women opt for medical termination of pregnancy (MTP) for various reasons including birthcontrol.[1] MTP therefore is an important aspect of women's reproductive health and right. Abortion, whether spontaneous or induced or whether legal or illegal, results in complications to the mother.[1] Complications of unsafe abortion account for an estimated 9% of all maternal deaths.[2] Females in the young age group, residing in the urban slums, illiterate and of lower socioeconomic class are more vulnerable to the unwanted pregnancies.[3] These women are prone to illegal abortion because of economic, social and accessibility reasons. The study seeks to study the various socio-demographic & obstetric factors which influence induced abortions, especially among the socio economically poor population catered to by the Government Hospital.

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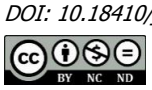


Objectives of the Study

1. To study the socio-demographic, obstetrical profile of patients undergoing MTP in obstetrics wards.
2. To study the trend in MTP conducted over the study period.
3. To study the outcome and complications if any of MTP procedure.
4. To correlate different variables related to the patients undergoing MTP.
5. To suggest measures to decrease the incidence of unsafe abortions.

MATERIALS AND METHODS

The study design is 'descriptive study of recorded data'. The study was carried out in MTP Operation Theatre of

Gynaecology and Obstetrics department in a Municipal Hospital attached to a Medical College situated in a Mumbai Metropolitan Region. Ethical approval was obtained from the Institutional Ethics Committee. Data used is secondary data from MTP OT register and case records where available. The study is a complete enumeration study. All the Medical Termination of Pregnancies conducted in the hospital OT from January 1st 2011to December 31st December 31st 2016, (n=1207) were included. There were no exclusion criteria. Operational definition for MTP "termination of pregnancy before the foetus becomes viable (up to 20 weeks) and performed as per the MTP rules and regulations laid out in the MTP Act, 1971,[4] revised in 1971 and amended in 2002"[1]and, definition of Unsafe abortion" a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both."[5]

The data obtained was entered in MS Excel and analysed. Categorical data were presented as frequencies and continuous data as mean ± standard deviation (SD). Statistical significance of difference was calculated by z-test (Standard Error) and Chi Square test. Correlation cofactor-r was used for bivariate analysis. Data is presented as Simple tables, cross tables and diagrams (wherever necessary).

RESULTS

The data was analysed, tabulated and is presented herewith. Table 1 shows the distribution of women undergoing MTP according to their age, the number of children borne by them and the cross relation between the age and the number of children. A total of 1207 woman underwent MTP from year 2011 to 2016.Age of these women ranged from 16 to 45 years with a mean of 28.1 years and a std. deviation of 4.62 years. The highest number of MTP acceptors (486, 40.3%) were in 26-30 years age group, followed by 21-25 years (374, 31.0%). The number of women less than or equal to 20 who accepted MTP was 33 (2.8%) and those beyond 30 years were 313 (26.0%). Of the women whose age and number of children is known, on cross tabulation, we see that by age 25 years, 223 (18.6%) women have borne at least 2 children, by 30 years 607 (50.6%) women, and by age 35 years, 815 (67.9%) women have 2 or more children. Totally, 869 (72.5%) women who underwent MTP had at least 2 children.

Table 2 shows the trend in the number of MTPs conducted in the department. There is an increase in number (129-314 MTPs) from year 2011 to 2013, then there is a decrease (265 MTPs) in 2014. There is a sharp decrease in 2015 (161 MTPs) and then a rise in 2016. The overall trend line shows a gradual rise in the number of MTPs conducted at the institution.

Table 3 shows that almost all (1196, 99.1%) pregnancies resulted out of failure of contraception. One pregnancy resulted from failure of Tubal ligation. One of the pregnant women was on Treatment for MDR Tb. None of the pregnancies resulted out of crime. There were 6 women who did not respond.

Almost all women were married. Only 6 women were unmarried, and 10 did not respond.

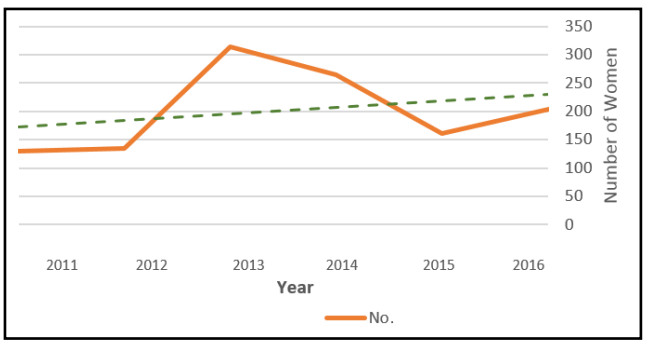
Table 4 shows the age-wise distribution of the number of women undergoing MTP and its correlation with the method of contraception after MTP, i.e., accepting Cu-T (temporary contraception) or Tubal ligation (Permanent contraception). Majority of the women preferred MTP with Tubal ligation (761, 63.05%) and 413 (34.22%) accepted IUCDs, whereas only 33 (2.73%) did not prefer any contraceptive. On cross-tabulation with the age and preference, those women accepting Tubal ligation(761) along with MTP, 510 (67.0%) were 30 years or less and those woman (413) accepting Copper T along with MTP, 358 (86.7 %), 30 years or less. If we consider age wise proportions, of the women age 30 or less (893), then 510 (57.11%) women preferred TL, 358 (40.1%) preferred Cu-T and 25 (2.8%) did not accept any form of contraceptive. This difference in proportion of contraceptive preference is statistically significant (Chi square = 53.3, Degree of freedom Df=1, $p<0.01$).

Table 5 shows cross tabulation of contraceptive preference with number of children. Of the 1200 women whose number of children were known, 330 (27.5%) had less than 2 children and 870 (72.5%) had 2 or more children. Of the woman accepting Tubal ligation (757 whose number of children is known) along with MTP, 42 (5.5%) had less than 2 children and of the 412 women who accepted MTP with Cu-T, 275 (66.7%) were having less than 2 children. This difference in proportion is statistically significant (Chi square = 505.5, Df=1, $p<0.001$). Of the women (32 whose number of children were known) who did not choose any contraceptive, 13 (41.9%) had less than 2 children. If we consider the proportions of women as per number of children than of the proportion of women who had less than 2 children, 42 (12.7%) chose MTP with TL, 275 (83.3 %) chose MTP with IUCD and 13 (4%) did not choose any form of contraceptive.

Table 6 shows gender differential according to number of children. It is seen that 358 women had no female children and 240 had no male child. The number of women who did not have any children were 9. This means that 349 (29.5%) women underwent MTP with at least one male child and 231 (19.5%) women without any male child did MTP.

Age (Years)	Number of Women with Living Children										Total	%
	0	1	2	3	4	5	6	7	9	DK		
<18	1									1	2	0.2
19-20		23	8								31	2.6
21-25	7	149	175	36	3	1				3	374	31.0
26-30		101	284	83	13	4				1	486	40.3
31-35	1	39	121	56	19	8	1	2	1	2	250	20.7
36-40		9	26	15	1	2	2				55	4.6
>41			2	4	2						8	0.7
NK			1								1	0.1
Total	**9**	**321**	**617**	**194**	**38**	**15**	**3**	**2**	**1**	**7**	**1207**	**100.0**
%	**0.7**	**26.6**	**51.1**	**16.1**	**3.1**	**1.2**	**0.2**	**0.2**	**0.1**	**0.6**	**100.0**	

Table No 1. Frequency of MTP Acceptors According to their Age and Number of Children



Year	No.	%
2011	129	10.7
2012	135	11.2
2013	314	26.0
2014	265	22.0
2015	161	13.3
2016	203	16.8
Total	**1207**	**100.0**

Table 2. Annual Incidence of MTPs Performed at the Hospital

MTP

Reason for MTP	Frequency	%
Contraceptive Failure	1196	99.1
Other / No information	11	0.9
Grand Total	1207	100.0
Marital status	Frequency	%
Unmarried	6	0.50
Married	1191	98.7
No information	10	0.8
Grand Total	**1207**	**100**

Table 3. Table Showing the Reason for Undergoing MTP and the Marital Status of the Patient Undergoing MTP

Age Years	TL	%	Cu T	%	MTP	%	Total	%
<18		0.00		0.00	2.00	6.06	2	0.17
19-20	6	0.79	25	6.05	0.00	0.00	31	2.57
21-25	168	22.08	189	45.76	17.00	51.52	374	30.99
26-30	336	44.15	144	34.87	6.00	18.18	486	40.27
31-35	202	26.54	42	10.17	6.00	18.18	250	20.71
36-40	41	5.39	13	3.15	1.00	3.03	55	4.56
> 41	7	0.92		0.00	1.00	3.03	8	0.66
NK	1	0.13		0.00	0.00	0.00	1	0.08
Total	**761**	**100**	**413**	**100.00**	**33.00**	**100.00**	**1207**	**100.00**

Table 4. Contraceptive Preference of Women (MTP + TL/Cu-T) as per the Age of the Mother

No. of Children	TL	%	Cu-T	%	MTP only	%	Total	%
0		0.0	3	0.73	6	18.2	9	0.75
1	42	5.5	272	65.86	7	21.2	321	26.59
2	492	64.7	113	27.36	12	36.4	617	51.12
3	168	22.1	21	5.08	5	15.2	194	16.07
4	35	4.6	2	0.48	1	3.0	38	3.15
5	14	1.8	1	0.24		0.0	15	1.24
6	3	0.4		0.00		0.0	3	0.25
7	2	0.3		0.00		0.0	2	0.17
9	1	0.1		0.00		0.0	1	0.08
Z	4	0.5	1	0.24	2	6.1	7	0.58
Total	**761**	**100**	**413**	**100.0**	**33**	**100.0**	**1207**	**100.00**

Table 5. Contraceptive Preference of Women (MTP + TL/Cu-T) as per the Number of Children

No. of children		Male Children 0	1	2	3	DK	Total Female	% Female
	0	9	171	170	8		358	29.7
	1	142	369	68	4		583	48.3
Female	2	78	99	17	2		196	16.2
child	3	10	15	7	1		33	2.7
	4	1	8				9	0.7
	5		1	1			2	0.2
	6				1		1	0.1
	DK					25	25	2.1
Total Male		**240**	**663**	**263**	**16**	**25**	**1207**	**100.0**
% Male Children		**19.9**	**54.9**	**21.8**	**1.3**	**2.1**	**100.0**	

Table 6. Cross Tabulation between Women having Male and Female Children

DISCUSSION

Table no. 1: Age- Of the 1207 women, majority (860, 71.3%) were in age group 21-30 years. They are young sexually active group women who could have prevented the agony of MTP procedure if they had access to better MTP services. Other authors have given similar finding.[6,7] According to Agarwal S,[8] induced abortion is higher at parity 2-3, which is similar to our finding on cross tabulation, it is noted that more than 50% women have completed family size of 2 children by age of 30 years. As noted by some authors, in older age group the risk of unwanted pregnancy is more and in younger age groups the risk of mistimed pregnancy is more.[9]

Table No 2 shows the trend of MTP conducted over 6 years period. There is an annual increase from 2011 to 2013 followed by a decrease and then a rise in 2016, although there is overall gradual rise trend. The Thane city population of the past 5 year has increased as following:2012 –1.9 Million, 2013 –1.95 Million, 2014 –2.1 Million, 2015 –2.18 Million, 2016 – 2.2 Million., an increase of 3.2 Million.[10] This population trend may be responsible to initial increase. The decrease in MTP seekers in the hospital in 2014-15 could be because of increase in Health care providers in and around the city. In US, the number of abortions has been decreasing because of decrease in proportion of young women (<30 years). Even in other developed countries, the number of induced abortions has decreased.[11]

As seen in Table No 3, of all MTP acceptors, 99% were married. In a study at R.G. Kar hospital, 95.6% women were married. As per reports (WHO 1994), it is found that females having induced abortion are married or partners of stable union and already have several children.[12] The MTP undergone due to reasons like failure of contraception, spacing children or completing family size can be avoided by safer methods of contraception.

Reason for MTP: Other authors have seen that the most common reasons given for terminating the pregnancy was "completed family size", inadequate spacing[13,14] and 7- 9 % of the total MTP were due to contraceptive failure. Many women were evasive about the reason for undergoing MTP[9] In this study, the most common reason for undergoing MTP was Contraceptive Failure (n=1196). This may be because it is convenient response of the women for this question. It points out that MTP is being used as emergency contraception. Also, this fact highlights unmet need of contraception and counselling.[7]

Since the women were practicing contraception (which failed), these were unintended pregnancies. Other authors differ in the opinion[15] As most women more than 30 years of age have completed family size, they should be adopting permanent or long-term contraception which are much safer and efficient than other methods like OC Pills and condoms.[1]

Family Planning Acceptance after MTP

Majority of the women (1174, 97.3%) accepted post abortion contraception. In this study, women who accepted IUCDs after MTP were 413 (34.22%), whereas almost double (761, 63.05%) accepted permanent contraception. Most authors have noted that women are ready to accept permanent sterilization after MTP.[7,16] In one study it was noted that nearly 55% of the women undergoing had never practiced family planning, had poor knowledge about abortion and the most important source of their knowledge was their neighbours.[17] Although, this can be attributed to increasing awareness and safety of the procedure, however it also exemplifies the fact that the actual methods of contraception are not being properly adopted by the couples. Also, existing post abortion Family Planning Services are inadequate at most places.[13]

Deliveries before MTP Procedure

As seen, 281 (23.4 %) women less than 30 years who underwent MTP had less than 2 children. Most of these young women, adopted MTP could be because of mistimed pregnancy.

The number of live issues seems to make an impact on the couple's decision to go for permanent or temporary methods of contraception along with MTP. When family size is not completed, couples preferred IUCD over Tubal ligation. In those with more than 2 children, preference for terminal method of contraception was seen. As pointed in some studies, women's decision for MTP depends on her desire to limit family size with preferred sex composition of.[18,19] In this study, 50% women had 2 children and 21% had 3 or more children. Others have noted 38.58% had 3 or more living children while 36.1% had 2 living children and one child norm was seen in only highly educated couples.[13] It is encouraging to note that they wanted to follow the 2 children norm. It also points out to the fact that adequate measures of Family Planning if adopted timely could have avoided the unwanted pregnancy & consequent MTP altogether.

If we consider the table 6, among the MTP acceptors, women with at least one male child (and no female child) is more than those with only one female child (and no male child). Thus, there is a chance that gender of child may have an impact on the decision to undergo MTP. Quereshi SR has noted that the couples seeking M.T.P. prefer male sex child irrespective of family size, educational status and rural/urban status.[13]

CONCLUSION

In this study, most of the women preferred MTP after 2nd pregnancy and at the age of 21-35 years. Most women accepted permanent method of sterilization after MTP which shows that women had completed family by the age of 30 years and had no access to effective contraceptive services. MTP thus seems to be used as an emergency treatment for failed contraception. This trend should be discouraged but at the same time safe abortion should be legalised to safeguard the health of the women. Although the risk of MTP procedure has decreased, repeated abortion is not conducive to mothers' health, it must be ensured that MTPs does not replace the traditional methods of birth control. Contraceptive awareness must be increased with focus on 24-30 years and those having two living children. Legal and safe MTP services should be made available to prevent unwanted pregnancies through community level workers like ANMs, ASHAs, Anganwadi workers and MPWs.

REFERENCES

[1] Park K. Demography and family planning. Chap- 8. Textbook of preventive and social medicine. 23rd edn. Jabalpur: Bhanot Publishers 2015:502-509.
[2] Yadav A, Sharma C, Mehrotra M, et al. Profile of abortion seekers and decision makers of post abortion contraceptive acceptability in Andaman and Nicobar Islands, India. Int J Reprod Contracept Obstet Gynecol 2016;5(10):3491-3495.
[3] Koringa HT, Joshi KJ, Mehta JP. A study of sociodemographic determinants, reasons and decision maker of medical termination of pregnancy in urban slums of Jamnagar, India. Int J Res Med Sci 2015;3(8):1964-1968.
[4] MTP Act, Government of India, Ministry of Health and Family Welfare. http://www.mohfw.nic.in/index1.php?lang=1&level=4&sublinkid=3615&lid=2598
[5] Sebastian MP, Khan MF, Sebastian D. Unintended pregnancy and abortion in India: country profile report. India Research Report March 2004: p. 3. https://www.popcouncil.org/uploads/pdfs/2014STEPUP_IndiaCountryProfile.pdf
[6] Barge S, Khan ME, Rajagopal S, et al. Availability and quality of MTP services in Gujarat, Maharashtra, Tamil Nadu and Uttar Pradesh. Center for Operations Research and Training, Version: working paper 13. 2002: p. 24.
[7] Katke RD, Prabhudesai AA. Socio-epidemiological factors of medical termination of pregnancy: an

overview in a tertiary care institute. Int J Reprod Contracept Obstet Gynecol 2016;5(4):1061-1064.
[8] Agrawal S. Determinants of induced abortion and its consequences on women's reproductive health: findings from India's National Family Health Surveys. DHS working papers, USAIDA, Macro International Inc 2008.
[9] Dutta M, Shekhar C, Prashad L. Level, trend and correlates of mistimed and unwanted pregnancies among currently pregnant ever married women in India. PLoS ONE 2015;10(12):e0144400.
[10] Population of Thane 2017. http://indiapopulation2017.in/population-of-thane-2017.html
[11] Speroff L, Darney PD. Induced abortion and post-abortion contraception. Chap- 13. In: A clinical guide to contraception. 5th edn. New Delhi: Wolters Kluwer/Lippincott Williams and Wilkins 2011:405-428.
[12] Chaudhuri SK. Pregnancy termination. Chap- 13. In: Practice of fertility control: a comprehensive textbook. 5th edn. Reprint New Delhi: Publisher Churchill Livingstone Pvt Ltd 2002:229-231.
[13] Quraishi SR, Waghachavare VB, Gore AD, et al. Evaluation of indications and adoptions of contraceptive practices in MTP seekers from Sangli-Miraj-Kupwad corporation area, Maharashtra. Innovative Journal of Medical and Health Science 2014;4(2):75-78.
[14] Kathpalia SK. Acceptance of family planning method by induced abortion seekers: an observational study over 5 years. Med J Armed Forces India 2016;72(1):8-11.
[15] Trussell J, Vaughan B, Stanford J. Are all contraceptive failures unintended pregnancies? Evidence from the 1995 National Survey of Family Growth. Fam Plann Perspect 1999;31(5):246-247.
[16] Sheelamoni A, Nair MK, Remadevi S. Contraceptive behaviour of abortion seekers-a case control study. J Obstet Gynecol India 2007;57(5):431-434.
[17] Roy M, Lahiri BC, Ghosh BN. A KAP study on MTP acceptors and their contraceptive practice. Indian J Public Health 1978;22(2):189-196.
[18] Agrawal S. The sociocultural context of family size preference, ideal sex composition, and induced abortion in India: findings from India's National Family Health Surveys. Health Care Women Int 2012;33(11):986-1019.
[19] Shanbhag S, Dhingra N, Shinde RR. A study to assess the pattern of family planning acceptance with respect to MTP adoption in an urban maternity home. Journal of Evolution of Medical and Dental Sciences 2015;4(16):2771-2776.