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Termination of Pregnancy in a Tertiary Hospital Setting, a Holistic Review of Various Factors

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Objectives: To determine various criteria's for termination of pregnancy in a tertiary health centre, the acceptance of contraception and the opinion of women on the legalization of prenatal sex determination.

Materials and Methods: This was a cross sectional study conducted in MGM Medical College and Hospital, Navi Mumbai, Maharashtra, India, including 200 patients who attended the OPD for MTP over a period of 1 year

Discussion: Abortion has been and continues to be one of the most widely employed methods of fertility control in the world.

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Strictly as per the compliance and regulations of:

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Discussion: Abortion has been and continues to be one of the most widely employed methods of fertility control in the world. A growing number of studies provide direct and indirect estimates of the incidence of sex-selective abortions ranging from 3-17% over different reference periods, i.e. two years preceding the survey to lifetime.

Conclusion: Among the entire criterion, it was found that the effect of age, gravid status, parity and number of female offsprings significantly affected the reasons for termination of pregnancy.

I. Introduction

The most important social event in the lives of most people is the birth of their own child. Despite the advances in the modern world, even today, for many women in developing nations, the sole purpose and meaning of their existence is associated with motherhood. Societal goals of reducing poverty, maternal and infant mortality, unwanted births and abortions are all affected by control of fertility.

Before the Medical Termination of Pregnancy (MTP) Act, an unwanted pregnancy in both the rural as well as urban parts of the country was managed by resorting to illegal abortion, infanticide, or abandonment of the neonate. Medical Termination of Pregnancy has today become a way of life and unfortunately has been accepted worldwide as a convenient mode of temporary contraception. The Indian Parliament liberalized the abortion laws of the country due to the socio-economic necessity. MTP is a great social boon to women and their affected families as it does not destroy their social future as would otherwise happen in conservative societies.

Patterns of sexual and reproductive behavior in India have changed significantly over the years. However, out of wedlock births are still considered a taboo. Family planning services were available long before the legalization of the MTP act in India. Although the community accepted these methods due to various government incentives, the awareness of contraception in the country in the lower classes of society and adolescents is yet to improve. With the MTP act being implemented, it was feared that it would be used as an alternative to family planning methods.

MTP services are available today even in the most remote areas of the country. However the negative aspects became more and more obvious in the following years. The mentality of the desire for a male child existed in most sects of Indian society irrespective of the socio-economic state. The rates of sex selective abortions and female foeticide increased dramatically with the advent of ultrasonography. The Government thus introduced the Pre Conception and Pre Natal Diagnostic Techniques Act in 1994(PCPNDT) and made the prenatal ultrasound diagnosis of sex determination illegal.

Unfortunately illegal MTPs and prenatal sex determination continues to be carried out widely by untrained and unlicensed hands in spite of the Government and social organizations efforts against this obnoxious practice.

II. Aims and Objectives

1. To determine various criteria's for termination of pregnancy in a tertiary health centre.
2. To see the role of contraception as a method of or prevention of conception
3. To determine if termination is used as a mode of contraception
4. To determine if knowledge of foetal sex would have changed the decision to terminate pregnancy
5. To determine if sex of living issues affected the decision of termination of pregnancy
6. To know if sex determination was done in any one of their prior pregnancies
7. To know the patient's preference for sex determination

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8. To know the effect of education, socio-economic status and marital status on contraception and opinion on termination of pregnancy if male/female child in utero.

III. Materials and Methods

- This was a study conducted in MGM Hospital, Kamothe, Navi Mumbai
- The study included 200 patients
- All the patients who attended outpatient services for MTP were included in the study
- This was a cross-sectional study
- The Stratified Random Sampling Method was used for patient selection

All the patients who attended our outpatient services as well as the indoor patients who were admitted for MTP regardless of mode of contraception or no contraception after termination of pregnancy were selected. The selection criteria were not dependant on age, education, socio-economic status or marital status.

IV. Observations and Statistical Analysis

1. Reasons for termination of pregnancy
2. Social
3. Spacing
4. Failure of Contraception
5. Financial
6. Maternal Disease
7. Rape
8. Mental Reasons
9. Foetal Reasons

In our study we found that financial reasons were the most common reason for termination of pregnancy overall. Among all parameters, the reasons for termination of pregnancy between 20-29 years of age, 36.1% were financial followed by spacing, between 30-39 years as well as above 40 years of age was financial (48.4%, 41.7% respectively). Below the age of 20 years 40% of the reason was due to rape and another 40% was due to social reasons. Foetal anomalies accounted for only 0.3% of all the pregnancies terminated. Comparing the gravid status, the subjects who were 3rd gravida had a maximum termination (40.4%) followed by the 2nd gravida (29.4%). Among primigravidas, 60% of the subjects gave social reasons as the explanation for opting for MTP, 48.5% for spacing in gravida 2, and for financial reasons in gravida 3, 4 and beyond (43.9%, 49.3% and 44.4%). Primipara women mostly opted for MTP for spacing (45.1%), 46.5% and 57.7% of second and third parity women gave financial reasons. In our study we found that age, gravid status as well as parity significantly affected the reasons she opted for medical termination of pregnancy.

We also compared the acceptance of contraception and we found it to be significantly associated with the level of the patients education with 71.4% of the subjects educated beyond the secondary level who accepted contraception as compared to 30.8% of the uneducated subjects who did so. We also considered the opinion of all the women regarding legalization of sex related termination of pregnancy and the only parameter that was significant was parity with women who were primiparous maximally opined that they would opt for termination if the foetus was female in contrast with those with 3rd parity who were indifferent in 85.7%.

V. Discussion

Abortion has been and continues to be one of the most widely employed methods of fertility control in the world1, 2. Today 6 out of 10 of the world's population live in countries where abortion is available 'on request' during the first trimester or where the language of the law encourages broad liberal interpretation. It was found that in cases of multiple repetitive abortions there was ambivalence towards contraception3. Pregnancy always is not synonymous with a desire for motherhood. It could be a neurotic expression full of guilt that shows that these women did not overcome a childish rivalry with their mothers.

The first country to make abortions available for social reasons was the USSR in 19204. Gradually over the years abortion laws became more and more liberalized. In India, The Medical Termination of Pregnancy Act was enforced from 1st April 1972. Prior to this women resorted to illegal and unsafe methods to abort their pregnancies by unwarranted hands leading case of foetal anomalies which are incompatible with life, the act permits termination upto 20 week of gestation albeit only after the opinion of two qualified registered medical practitioners5,6. However access to safe abortion services remained limited for the vast majority of Indian women, particularly in rural areas. An overwhelming proportion of induced abortions (6.7 million annually as per indirect estimate7) take place in unauthorized centers, which provide abortion services of varying degrees of safety. Thus the act was amended on 2002 in which the authority for approval of registration of MTP centers has been decentralized from the state to the district level 8, 9. In the year 2003, the Government introduced a further amendment to MTP to a very high rate of morbidity as well as mortality due to the complications of septic abortions. The MTP act in India in a nutshell gives the liberty to every woman who is above 18 years and of sane mental constitution to legally opt for termination of pregnancy within 12 weeks of gestation on the grounds of failure of contraception, financial reasons, alleged rape, if the fetus is incompatible with life or if the pregnancy causes mental or physical anguish to the mother or in cases where the

husband to terminate her pregnancy. The Act defines the place and the requirements of the medical practitioner who can terminate her pregnancy and in pregnancy causes deterioration of the maternal physical condition. A woman need not take the consent of her

Table 1: Among all the criterion, it was found that the effect of age, gravid status, parity and the number of female offsprings significantly affected the reasons for termination of pregnancy

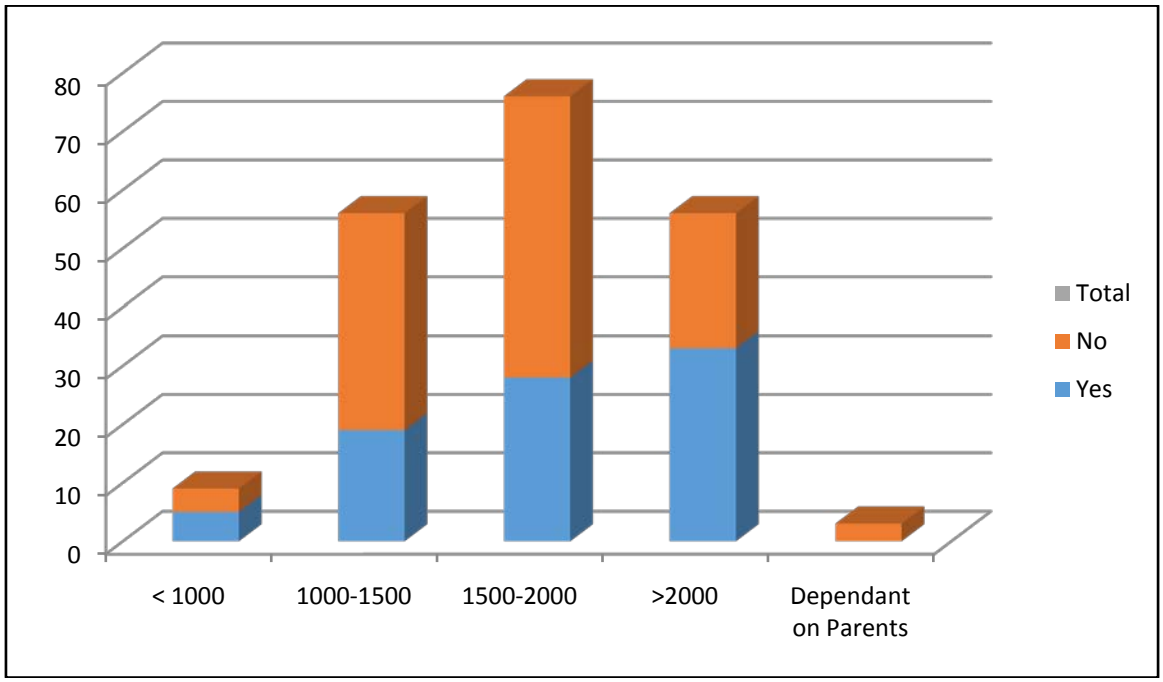
Parameters	1	2	3	4	5	6	7	8	P Value
Age	<20 yrs 2/5	20-29 yrs 79/233	20-29 yrs 12/233 (5.2%)	30-39 yrs 44/91	≥ 40 yrs 3/12 (25%)	<20 yrs 2/5 (40%)	30-39 yrs 2/91	20-29 yrs 1/233 (0.4%)	0.035
Gravid Status	1 9/15 (60%)	2 49/101 (48.5%)	3 9/139 (6.5%)	4 35/71 (49.3%)	3 33/139 (23.7%)	1 3/15 (20%)	3 3/139 (2.2%)	3 1/139 (0.7%)	0.0000 235
Parity	>3 7/52 (13.5%	1 55/122 (45.1%)	2 11/149 (7.4%)	>3 30/52 (57.7%)	2 32/149 (21.5%)	0	1 3/122 (2.5%)	1 1/122 (0.8%)	4.64^{-7}
H/o previous abortions	MTP 3/33 (9.1%)	SA 12/46 (26.1%)	MTP 3/33 (9.1%)	MTP 14/33 (42.4%)	SA 12/46 (26.1%)	0	SA 2/46 (4.3%)	SA 1/46 (2.2%)	0.389
No. of male offsprings	2 3/38 (7.9%)	1 55/185 (29.7%)	1 10/185 (5.4%)	2 20/38 (52.6%)	2 10/38 (26.3%)	0	1 1/185 (0.5%)	1 1/185 (0.5%)	0.079
No. of female offsprings	>2 2/11 (18.2%	1 54/174 (31%)	>2 1/11 (9.1%)	2 28/58 (48.3%)	>2 3/11 (27.3%)	0	1 4/174 (2.3%)	0	0.032
Socio-economic Status ($/year)	<1000 4/15 (26.7%)	1000-1500 29/93 (31.2%)	<1000 1/15 (6.7%)	<1000 7/15 (46.7%)	1500-2000 26/123 (21.1%)	1000-1500 1/93 (1.1%)	<1000 1/15 (6.7%)	>2000 1/111 (0.9%)	0.706
Educational Status Primary – 10th grade Secondary – 12th grade	Primary 6/60 (10%)	>Secondary 5/11 (45.5%)	>Secondary 1/11 (9.1%)	Uneducated 78/169 (45.9%)	Primary 16/60 (25%)	Primary 2/60 (3.33%)	Uneducated 5/169 (2.9%)	Secondary 1/104 (1%)	0.121

a) Acceptance of Contraception

Table 2

Socio Economic Status ($/annum)	Yes	No	Total
≤ 1000	5(55.6%)	4(44.4%)	9(4.5%)
1000-1500	19(33.9%)	37(66.1%)	56(28%)
1500-2000	28(36.8%)	48(63.2%)	76(38%)
>2000	33(58.9%)	23(41.1%)	56(28%)
Dependant on Parents	0	3	3(1.5%)
Total	85(43.1%)	112(56.9%)	200

Figure 1



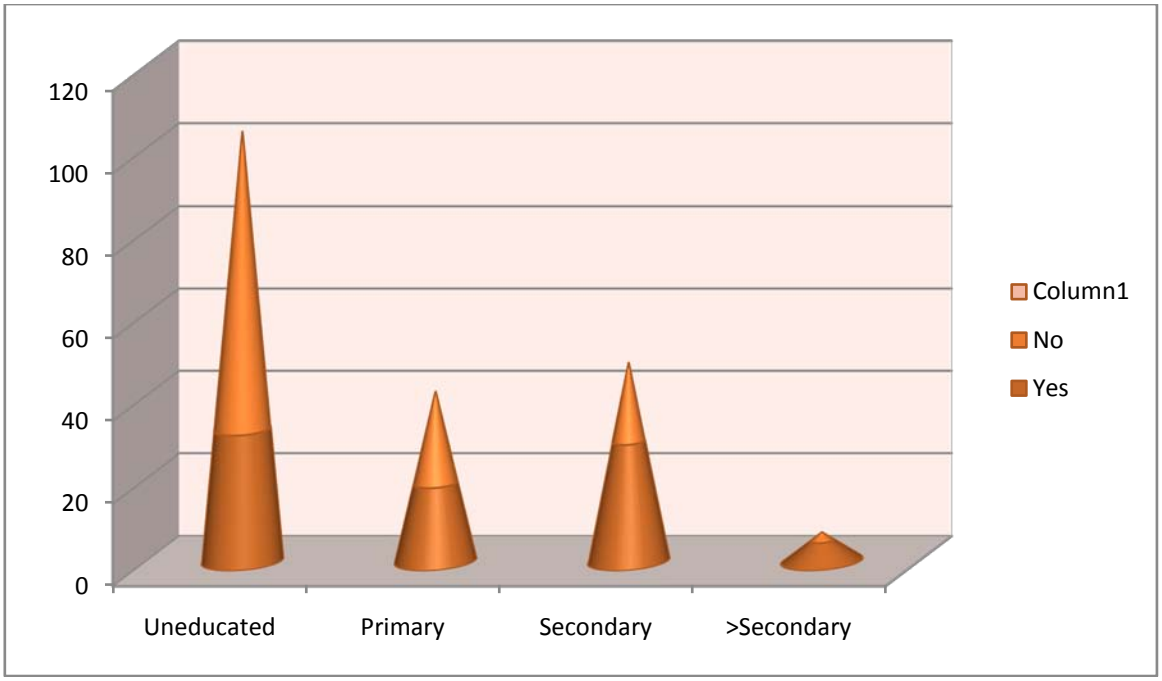
p-0.099 (not significant)

b) On the basis of educational status

Table 3

Education	Yes	No	Total
Uneducated	32(30.8%)	72(69.2%)	104(52%)
Primary	19(46.3%)	22(53.7%)	41(20.5%)
Secondary	29(60.4%)	19(39.6%)	48(24%)
>Secondary	5(71.4%)	2(28.6%)	7(3.5%)
Total	85(42.5%)	115(57.5%)	200

Figure 2



P = 0.00199% (highly significant)

c) Opinion on sex related termination of pregnancy

Table 4

Would Terminate if	Female	Male	Indifferent	P Value
Gravid Status	2 26/59 (44.1%)	3 5/77 (6.5%)	1 10/10 (100%)	0.129
Parity	1 29/68 (42.6%)	2 5/83 (6%)	≥3 30/35 (85.7%)	0.008
No. of male offsprings	1 29/112 (25.5%)	2 2/20 (10%)	2 16/78 (80%)	0.201
No. of female offsprings	2 15/34 (44.1%)	≥2 1/6 (16.7%)	2 19/34 (55.9%)	0.262
Socio-economic Status ($/year)	1000-1500 23/56 (41.1%)	>2000 4/56 (7.1%)	1500-2000 53/76 (69.7%)	0.335
Educational Status Primary – 10th grade Secondary – 12th grade	Primary 16/35 (45.7%)	Uneducated 5/102 (4.9%)	Secondary 39/57 (68.4%)	0.412

Rules which has rationalized the criteria for physical standards of abortion facilities.

Yet another obstacle faced was the sex discrimination in India. The desire for a male child is unfortunately yet very prevalent. With the practices of dowry among other things, a female child is supposed to be a burden to society whereas a male child is assumed to give security to the family10. This bias manifests as neglect of girls and women resulting in their early death 11, 12, 13, female infanticide 14, 15 and more recently, antenatal sex determination and female feticide16.

The Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) (PNDT) Act that made antenatal sex determination and sex selective abortion illegal in India, was passed in 1994. It came into effect in 199617. Amendments have also been introduced in the PNDT Act of 1994 which was necessitated as the PNDT Act had failed to curb the practice of testing for sex determination and consequent sex-selective abortion in the country18. With the recent amendment to the PNDT Act, preconception and pre-implantation procedures for sex selection are banned in the country. The Amendment stipulates compulsory maintenance of written records by diagnostic centres/ doctors offering sonography service. Local authorities have also been given powers to ensure the enforcement of the Act19. However the sex ratio in India has continued to fall as evidenced in the 2011 Indian Census. The number of girls per 1000 boys dropped from 927 in 2001 to 914 in 2011 for children aged 0-6 years; most notably in the state of Maharashtra, which recorded a decline in the sex ratio from 913 in 2001 to 883 in 201120.

According to WHO, in countries where contraception was widely available such as England and Wales, USA and the Netherlands, almost half of the abortions are in women less than 25 years of age whereas in those nations with no tradition of contraceptive use, and with limited availability of contraception, and sterilization, the women were above 35 years of age 21. A survey done in West Bengal, India22 revealed that the maximum number of MTPs was done in the age group of 25 – 29 years (10263/48635) followed by those 30 – 34 years and 20 – 24 years and the least number in the age group over 45 and less than 15 years.

A growing number of community- and facility based studies provide direct and indirect estimates of the incidence of sex-selective abortions. A number of studies in different parts of India report a prevalence of sex-selective abortion ranging from 3-17% over different reference periods, i.e. two years preceding the survey to lifetime23-26. Facility-based studies report a much higher prevalence, for example, two in five women with one or more daughters, but no living sons had had an abortion in a Patiala (Punjab, India) hospital27.

The most common reasons for MTP is either financial or an unplanned pregnancy28. Several other studies indicate that most abortions are sought to limit family size or space the next pregnancy23, 24.

The acceptance of contraception too has been found to be associated with the level of the woman's education as well as the previous number of male issues. If a male child was among the living issues, contraception was accepted and used earlier29. Fertility and contraceptive use in developing countries are associated with various markers of socioeconomic status, the most prominent of which is women's education30, 31; the well documented link between female education and use of contraception plays an important role in development of family planning policies in lower income countries.

In parts of South Asia, and elsewhere, women have a considerably lower social status and autonomy than men31, 32, and their low status and autonomy seems to be associated with lower fertility control. Several reports showed a positive association between women's autonomy and contraception use33,34. Improving women's education has been seen one way to increase their status and autonomy, and it has been proposed that autonomy acts as a mediator of the link between education and contraception use 31, 35.

VI. Conclusion

Our study revealed that factors like the woman's age, her gravidity, parity, the sex of her offsprings as well as the number of living issues she had significantly affected her decision and reasons for termination of her pregnancy. Education played a significant role in the acceptance of contraception of a woman whereas the number of living issues she had did affect her opinion on the legalization of sex determination antenatally. Adolescent pregnancy termination in Indian society was highly influenced by the marital status of the patient. As evident in the study, all the adolescent pregnancy termination were in those who were unmarried. The thirst of the male child continues to dominate our society. Even one living male child boosted the decision of termination of pregnancy in contrast to couples with only female issues who were hesitant to undergo an abortion.

There was a marked increase in the percentage of contraceptive use by raising the standard of living with the help of proper education thus decreasing the incidence if termination of pregnancy as already evidenced in developed countries.

The preference of a male child still prevails widely over most parts of the country leading to the obnoxious and illegal practice of female feticide. Financial instability is yet the commonest cause for medical termination of pregnancy followed by spacing.

It is not one factor alone that determines the cause but a combination of factors which influence each other as well as drive a woman to opt to terminate her pregnancy.

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