Research Article

The burden of unintended pregnancies: a cross sectional study

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Abstract

Background: Even though family planning methods and various health services are available, there is little increase in couple protection rate. The unintended pregnancy may end in termination of pregnancy of a birth of a child contributing to population explosion. Identifying the prevalence of termination of pregnancy and factors associated with the termination of pregnancy among reproductive age group women could help in determination as well as bridging the gap.

Objective: The primary objective was to find out the prevalence of medical termination of pregnancy (MTP) and factors related with MTP in rural community. The secondary objective was to explore obstetric profile, to find out any association of obstetric profile and MTP.

Materials and Methods: A cross-sectional, community-based observational study was conducted among 450 reproductive age group women in a study district by multistage sampling. Each participant was interviewed in detail following written informed consent.

Result: Prevalence of MTP in this study was 21.88%. The high prevalence of unmet need of contraception was 42.88%, with various reasons. Most of the CPR is contributed by permanent method of contraceptives. It was found that 33.6% women had three or more children. Initial conceptions were not intended by the women.

Conclusion: There is need to counsel women of reproductive age group that MTP is not a way to control unwanted birth and it is not free from risk. They should be motivated for various methods of contraception.

KEYWORDS: MTP, obstetric profile, reproductive age

Introduction

The ability of couples to plan the number, spacing, and timing of births is an important fundamental human reproductive right. India was the first country in the world to launch a National Family Planning Programme in 1952. It was purely a demographic program with the sole objective of reducing the birth rate to stabilize the population. Under which various methods of contraceptives, oral contraceptives, condoms, IUDs, male and female sterilization, emergency contraceptives, and inject able contraceptives are available at nearest health facility for the community with active engagement of ASHA under NHM.

With the legislation of the medical termination of pregnancy (MTP) act in 1971, India became one of the first countries legalizing abortion on moderately liberal grounds. The MTP Act, 1971 though appears to be enacted for control of population of India but the provisions were actually enacted to provide for the termination of certain pregnancies by the registered medical practitioners (RMP) for protection and

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preservation of the lives of women. In view of increased number of 'female foeticide' leading to change of male-to-female sex ratio and increased rate of maternal mortality and morbidity, need was felt for amendments in abortion law. PNDT Act (1994) enacted upon it with its strict implementation.

Among the 208 million women estimated to become pregnant each year worldwide, 123 million experience a planned (or intended) pregnancy leading to a birth or miscarriage or a stillbirth. According to 2008 global estimates, nearly half (48%) of the unintended pregnancies will end in abortion and most of them will be unsafe. More than 100,000 women in India who die annually during pregnancy and childbirth, 10,000, deaths are due to "unsafe abortions." Unsafe abortion and unmet need for family planning (FP) are preventable; but remains the cause of maternal mortality and morbidities and even child health problems and mortality. While the overall sex ratio in the country seemed to have improved from 927 to 933 in last decade as per 2001 Census, the overall sex ratio of the 0–6 years population of children has shown a decline from 945 to 927. Desegregations of the Census data revealed the disturbing trends of very poor sex ratio.

Prosperity, intellectual or otherwise, does not necessarily mean a change in social attitudes toward gender bias. A critical review of MTP Act was also emphasized theses aspects (5). Chronology of Events of Abortion Laws the provisions regarding abortion law in the IPC[12] were enacted, more than a century ago.

When a woman wants to terminate an unwanted pregnancy various factors are involved in the decision making. The decision to undergo an abortion among married women is taken jointly by the woman and her husband but the obligations to communicate with family members leads to delays in seeking abortion (6). Several studies indicate that most abortions are sought to limit family size or space the next pregnancy. The misinformation and apprehension about the different contraceptive methods prevents widespread contraceptive use. Though MTP is a safe procedure, it is not free from complications and it is dangerous to use it for spacing.

Contraceptive prevalence (% of women ages 15–49) in India was 54.80 as of 2008. Its highest value over the past 38 years was 56.30 in 2006, whereas its lowest value was 13.60 in 1970. (8) Increase in prevalence of contraceptive usage is a welcomed finding, but in most of cases it is contributed by permanent method of contraceptives. The couple protection rate of spacing method being low and higher number of unintended pregnancy suggests that there is a gap in utilization of services even though provision is made.

In this study, the attempt was made to identify the prevalence of termination of pregnancy and factors associated with the termination of pregnancy among reproductive age group women by in-depth interview. Identification of such factors could help in determination as well as bridging the gap.

The primary objective was to find out the prevalence of MTP and factors related with MTP in rural community. The secondary objective was to explore obstetric profile and to find out any association of obstetric profile and MTP.

Materials and Methods

This assessment employed quantitative research methodology in rural areas of study district. It was a cross-sectional study conducted for period of 1 year, that is, from July 2013 to June 2014. Sample size of this study was decided on the basis of 2008 global estimates nearly half (48%) of the unintended pregnancies will end in abortion and most of them will be unsafe.(3)

As per WHO practical manual on sample size determination in health studies by Lwanga and Lemeshow[9].(9) $N = Z\alpha\ PQ/l^2$ Where, $Z\alpha$ =1.96 at 5% significance level, N = required sample size, P = proportion or prevalence of interest, $Q = 100-p$, L = allowable error, so for calculation of sample size, P is taken as 48%, so as $q = 52\%$. If l =10%, Then, sample size would be, $N = (1.96)^2 * 48*52/4.8\times4.8 = 416.17$, which was round upped to 450, thus total sample size comes out to be 450 study subjects. The study group comprised of 450 women of reproductive age group of rural areas of study district.

Inclusion criteria were ever married, reproductive age group women (15–49 years), willing to participate, not pregnant presently, whereas exclusion criteria were unmarried women and not willing to participate.

Study subjects were selected by multistage sampling. Of the total seven blocks in the district, three blocks were selected randomly. Five primary health centeres were selected from each of the blocks by simple random sampling. From each PHC three subcenteres were selected by simple random sampling method. So total 45 subcenteres were selected from three blocks. Subcenter was taken as natural cluster. Thus total 45 clusters were selected. From the one geographically identified point, one direction was chosen randomly and from each cluster 10 women were selected and interviewed till the desired number was achieved in each cluster. So, a total of 450 women were recruited from rural area.

Data were collected in a predesigned and pretested pro forma by interviewing women. The study was carried out by undertaking house-to-house visits of the area of each cluster. pro forma consisted sociodemographic profile and FP profile. The deficiency and the misbelieves were corrected by means of one-to-one health education.

The data entry was done in Microsoft Office Excel 2007. Analysis was done using Epi Info and Microsoft Office Excel 2007 and SPSS (Chicago, IL, USA).

The study protocol was reviewed and approved by the institutional ethical committee of the institution. Prior written informed consent was taken after fully explaining the purpose of the study.

Result

There was even distribution in almost all age group of reproductive women except for15–19 years and 40–44 years [Table 1]. Majority belonged to middle and lower socioeconomical class. Higher literacy rate among husbands of participants

Table 1: Sociodemographic profile of study subjects

Sociodemographic characteristics	Frequency (percentage)
Age group (years)	
15–19	9 (2)
20–24	99 (22)
25–29	81 (18)
30–34	72 (16)
35–39	72 (16)
40–44	36 (8)
45–49	81 (18)
Religion	
Hindu	378 (84)
Muslim	72 (16)
Social class	
I	63 (14)
II	81 (18)
III	138 (30.7)
IV	111 (24.6)
V	57 (12.7)
Educational status of women	
Illiterate	198 (44)
Primary	144 (32)
Secondary higher secondary	108 (24)
Educational status of husband	
Illiterate	126 (28.57)
Primary	140 (31.74)
Secondary and higher secondary	130 (29.47)
Graduate and above	45 (10.20)
Occupation	
Housewife	333 (74)
Labror	63 (14)
Famer	54 (12)
Occupation of husband	
Business	90 (20.40)
Service	81 (18.36)
Labror	180 (40.81)
Farmer	63 (14.81)
Other	27 (6.12)

(71.43%) than females (56%). Women were engaged in mostly household activities (74%) whereas their husbands were engaged in labor work (40.81%), some kind of business (20.40%), farming (14.81%), etc [Table 2].

Only 66.4% women had birth order ≤2; 32.7% women had birth order ≥3, suggesting that 13.8% had birth order of 3, 10.7% had birth order of 4, 5.3% had birth order of 5, and 2.95% had birth order of 6.

During their reproductive life span, 78.2% women had not any termination of pregnancy but 21.8% had termination of pregnancy once, 8% had two times, 2.7% had three times, 0.2% had four times, and 0.7% had five times.

Table 2: Distribution of women according to number of living children

Live children	Frequency (percentage)
0	85 (18.9)
1	65 (14.4)
2	153 (34)
3	62 (13.8)
4	48 (10.7)
5	24 (5.3)
6	13 (2.9)
Total	450 (100)
Abortion	**Frequency (percentage)**
0	352 (78.2)
1	46 (10.2)
2	36 (8)
3	12 (2.7)
4	1 (0.2)
5	3 (0.7)
Total	450
Reason for MTP*	**Frequency (percentage)**
Family completed	53 (54)
Previous baby too young	49 (50)
Unknowingly conceived	61 (62)
Cannot afford more children	9 (9.18)
Did not reply	48 (48.97)
Birth interval (years)**	**Frequency (percentage)**
1–2	58 (9.97)
2–3	291 (50)
>3	233 (40.03)

*Multiple responses
**Women who were primigravida were excluded.

No use of a contraceptive prior to having their first child was reported by 90.8% of young married women, and 23.9% reported having a child within the first year of marriage. Of the total, 17.3% reported having three or more children over the course of the marriage, 23% reported a rapid repeat child-birth, 15.2% reported an unwanted pregnancy, and 15.3% reported a pregnancy termination (stillbirths, miscarriages, or abortions).(10)

Most of the participants have had combination of various reasons for termination of pregnancy, such as family size was completed, a young child, conceived soon after delivery, and having sufficient number of children. Surprisingly, 49% did not give any reason for termination of pregnancy, which sparks us regarding various untold reasons, such as pressure from family or husband, female foeticide, and so on. Participants were not probed or forced regarding this untold answer to prevent any damage to their human rights.

Too close pregnancies are one of the social factors for determinants of maternal mortality and morbidity along with infant mortality and morbidity.(11)

Table 3: Distribution of women according to whether the conception was desired

Conception	No. of women	Conception desired (%)
First	379	184 (48.54)
Second	324	149 (45.99)
Third	195	70 (35.90)
Fourth	146	33 (22.60)
Fifth	49	16 (32.65)
Sixth	28	7 (25)

It was revealed that 40.03% women had birth interval more than 3 years, 50% had birth interval more than 2 years but less than 3 years, and 9.97% birth interval less than 2 years but more than 1 year [Table 3].

About 45% of women had not desired conception during their reproductive life span. Among 450 participants, 71 had not conceived till, so they were excluded from these results. When enquired about the desire of their respective conception, the results were as follows: less than half of the women (48.54%) had desire to have had first conception, which gradually decreased as the numbers of conception increased, 45.99% during second conception, 35.90% during third conception, 22.60% during fourth conception, 32.65% during fifth conception, and 25% during sixth conception.

This also suggests that there was no plan or preparation of decision about number of children and time in relation to birth. This indirectly suggests poor birth preparedness by the couple.

Among 450 study women, 57.11% women were using any method of contraceptives where as 42.88% women were not using any method of contraceptives, thus in this study the unmet need of contraceptive was 42.88%. Thus couple protection rate was 57.11% in this study. According to NFHS III, 56.5% women of 15–49 years use any FP method in Gujarat state [Figure 1].[12]

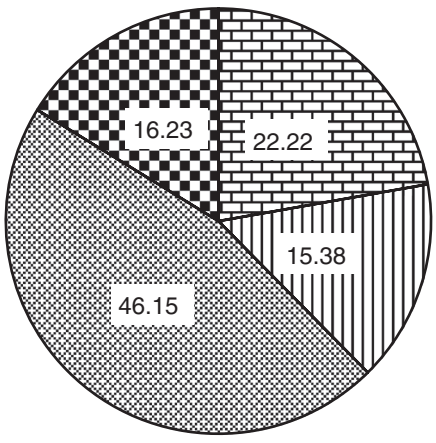

Figure 1: Reasons for nonusage of family planning methods.

When contraceptives nonusers were enquired about the reasons for non-adoption of the FP, 46.15% subjects had desire for more children, 22.22% subjects found the methods of contraceptives were inconvenient, 16.23% had lactational amenorrhea, and they believe that there was no need of any contraceptive method during that period.

Koringa Hetal (2014) found the reasons for unwillingness in 130 women who were not using contraceptive; multiple answers were given by them. It was observed that most of the women wanted child (43.08%) whereas 20.00% lacked knowledge about contraceptives. Other reasons for unwillingness to use of contraception were inconvenience (14.62%), desire of a male child (10.00%), and fear to use contraceptives (6.15%). Less common reasons were denial from spouse (7.69%), denial from family members (3.85%), and waiting for winter (9.27%).

Discussion

In this study when analysed in terms of sociodemographic profile, there was an even distribution of age group, except for 15–19 years (2%). Of all, 84% participants were Hindus.

In a study of maternal morbidity in Maharashtra by Bang et al.[13], of the total study subjects, 2% women were below 20 years of age. (13) Only 5.85% and 4.4% women were in the age groups of 40 years onwards and in 15–19 years, respectively. (14) According to NFHS-3 (2005–06) data,[15] majority of households in Gujarat were Hindu (91%), Muslims were 9%, and other religion was less than 1%.(15)

As per modified Prasad's classification, 37.4% belonged to lower class, of which 12.7% belonged to lower class, 24.7% belonged to upper lower class, 48.7% belonged to middle class, of which 30.7% belonged to lower middle class, 18% belonged to upper middle class, and 14% belonged to upper class.

In the study by Patel,[16] majority women (72.45%) belonged to the socioeconomical class IV and V, that is lower socioeconomical class and 26.22% women were from middle socioeconomical class that is class III and II, whereas only 1.33% women were from upper socioeconomical class.(16)

On assessment of literacy status, 56% women were literate and 44% women were illiterate; 32% women had up to primary education, 24% women were educated up to secondary, and none of the participant studied up to graduation and above. Of 441 husbands of study subjects, 28.57% were illiterate, whereas 71.43% men were literate, of which, 31.74% were educated up to primary level, 29.47% had education up to secondary and higher secondary level, and 10.20% were received education up to graduation and above.

Women with no education are six times more likely to get married early than those with 10 years or more of education. (17) Literacy plays important role in the development of health and health seeking behavior of individuals. According to DLRHS-1, 35.6% women were illiterate in this district and according to census 2011 of India; literacy rate of females in the same district was 65.97%.[9] In a study by Koringa Hetal

(2013), 23.77% women's husbands were illiterate, whereas 31.33%, 22.45%, and 12.23% women's husband had education up to primary level, secondary level, and higher secondary level, respectively. Only 10.22% women's husbands were graduate.

Observations indicate that majority of women (74%) were economically dependent on their husbands and thus less empowered, which may reflect adversely on their health-seeking behavior. 40.81% women's husbands were laborers, 20.40% had their own business, 18.36% were employed in different public and private services, 14.28% were farmers, and 6.12% were employed in other activities.

In a study by Nimavat Khyati (2012) majority (82.7%) of women were housewives, 10.2% women were laborer, 5.1% were farmer, and 2% were in service. In a study by Koringa Hetal (2013) more than half (52.89%) of women's husbands were laborers, 19.11% and 16% women's husbands were engaged in business and service, respectively. Only 8% women's husbands were drivers and 3.33% women's husbands were farmers.

Of all, 32.7% of women had three or more children. According to DLHS-3[18] of Jamnagar district shows that 26.3% women having more than three birth orders. (18) Thus in this study, 32.7% women had birth order more than three, which was somewhat higher than the district level health survey of study district.

It was noted that 21.8% women had termination of pregnancy once during their reproductive life span with most common reason was they conceived without her knowledge.

History of abortion suggests the possibility of women not seeking ANC and not prepared for birth adequately, which could be the reason of morbidity in their future. It also suggested that unmet need of contraceptives was highly prevalent.

When inquired about the place of abortion, each participant replied a public health delivery system, such as primary health center, community health center, and tertiary care hospital. It contributes to improvement in utilization of public health sector but the same should be for other factors too, such as usage of contraceptives.

Currently the main health problems affecting the health of the mother and the child in India, as in other developing countries, revolve round the triad of malnutrition, infection and the consequences of unregulated fertility.(19)

About 40% had birth interval of less than 3 years which is not conducive for her health and health of her child. It indicates that there was no planning of birth of the child (i.e. no FP was done).

Birth interval of less than 3 years affects negatively on women and her child's health status and makes them more vulnerable for various health problems. Research shows that at least 3 years of time duration between children reduces the risk of infant mortality.

Even for the first conception, only 48% had conception as planned pregnancy. In successive pregnancies, the rate of unplanned pregnancy was increasing with increasing birth order.

Young married women of 90.8% reported no use of a contraceptive prior to having their first child. Women of 23.9% reported having a child within the first year of marriage, 17.3% reported having three or more children over the course of the marriage, 23% reported a rapid repeat childbirth, and 15.2% reported an unwanted pregnancy. Of all, 15.3% reported a pregnancy termination (stillbirths, miscarriages, or abortions).(20)

Conclusion

Inadequacy of FP services reaching these women in need. Based on the observation, it is highly recommended that health workers should proactively make efforts to reach these women in need of family planning. This will avert undesired pregnancies and also help in preventing these women from exposure of dangers of undergoing MTP. The most common reason for MTP was unknowingly conceived. The health workers should provide adequate counselling to women for using appropriate FP methods to avoid unwanted pregnancy. There is need to counsel women of reproductive age group that MTP is not a way to control unwanted birth and it is not free from risk. They should be motivated for various methods of contraception.

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