Original Article

Family planning practices among women seeking induced abortion: An institution-based cross-sectional study from Eastern India

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Abstract

Introduction: Unmet need for contraceptive use indicates the gap between women's reproductive intentions and their contraceptive behavior. It is a direct contributor to the increased incidence of unwanted pregnancies leading to abortion. Abortions, particularly septic abortions constitute an important cause of maternal morbidity and mortality. **Objective:** This study was conducted to determine the pattern of family planning practices among women seeking an induced abortion. The study also aimed to assess the awareness and attitude towards contraceptive methods along with reasons for the nonuse of contraceptives in this study population. **Methods:** An institution-based cross-sectional study was conducted during October 2020 to October 2021. Data was collected using a preformed validated structured questionnaire. Descriptive statistics was used to describe data. The Chi-square test was used to find the significance of differences between categorical variables. **Results:** A total of 256 pregnant women seeking induced abortion were recruited. Despite high knowledge (99.2%) and attitude (63.7%), a history of contraceptive use could be elicited in 43.8% of study subjects. The most common contraceptive methods used previously were oral contraceptive pills followed by the barrier method of contraception. A significant association was found between contraceptive use and age of the woman, urban or rural background, and marital status. Unplanned sex or infrequent sex was the most common reason for the nonuse of contraceptives followed by fear of side effects. **Conclusion:** Enhancement of knowledge of contraceptive users through adequate information by health care providers can be helpful. Consideration of socio-demographic characteristics of women and contraceptive barriers is indispensable in implementing family planning interventions.

Keywords: Contraception, contraceptive barriers, family planning practices, induced abortion, Knowledge, Attitude, and Practice - GAP, knowledge attitude practice

Introduction

Unmet need in contraceptive use indicates the gap between women's reproductive intentions and their contraceptive behavior.[1] It is a direct contributor to the increased incidence of unwanted pregnancies leading to abortion.[2] Abortions, particularly septic abortions constitute an important cause of maternal morbidity and mortality. Despite various family planning programs being launched by our governments from time to time, it has always been challenging to effectively implement these programs.

Barriers to contraceptive use are multi-factorial. The gap between awareness of contraceptive use and its actual practice is due to various social, cultural, economic, and geographical factors.[3] Attitude towards contraception is also influenced by health concerns and safety issues about the same harbored in the

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minds of women.[4] Since the legalization of medical termination of pregnancy (MTP) in India, women can freely access safe abortion services. However, abortions have an adverse impact on the reproductive and mental health of the woman. Unintended pregnancies can be tackled by increased availability, accessibility, and acceptability of contraceptive practices.[5]

Women seeking abortion can best represent the group of an eligible couples who might not be using any contraceptive though there is a need for the same. A study on this sub-group of women can effectively identify the various reasons for seeking an abortion, the contraceptive behavior in these women, and the reasons for the nonuse of contraceptive methods. The data thus derived can influence the family planning policies of a particular region.[6] However, a review of the literature revealed few published data pertaining to family planning practices among women seeking abortion from this part of the country in recent times. Hence, this study was undertaken with the objective to determine the pattern of family planning practices among women seeking an induced abortion. The study also aimed to assess the awareness and attitude towards contraceptive methods along with reasons for the nonuse of contraceptives in this study population.

Materials and Methods

Study design and ethics approval

An institution-based cross-sectional study was conducted in a tertiary care center in Eastern India during October 2020 to March 2021. The study was approved by the Institutional Ethics Committee. Participation in the study was entirely voluntary. The participants were briefed about the nature and purpose of the study and assured of complete anonymity and confidentiality. Prior informed consent was obtained from all the participants. Procedures followed were in accordance with the ethical standards laid down under the Helsinki Declaration of 1975, as revised in 2000.

Study population and eligibility criteria

Pregnant women in the age group of 18 and 45 years who attended the department of obstetrics and gynecology seeking induced abortion services or presenting with incomplete abortion following MTP comprised the study subjects. Only women who gave their consent were included in the study. Pregnant women presenting with medical and obstetric indications for abortion, contraceptive failure, and spontaneous abortion or septic abortion were excluded from the study. Expecting the frequency of contraceptive use among women with induced abortion to be 37% (with confidence level = 90%), the sample size calculated was 252 after adjusting for design effect using OpenEpi: Open Source Epidemiologic Statistics for Public Health, Version 3 (Dean AG, Sullivan KM, Soe MM. www.OpenEpi.com). A total of 256 pregnant women were recruited during the study period. Detailed personal and reproductive histories were recorded followed by meticulous clinical examination. Management of each case was done according to hospital protocols.

Study definition

Induced abortion refers to the deliberate termination of pregnancy by medical or surgical methods provided by trained health care providers.

History of contraceptive use: use of any reversible contraceptive method regularly before the current pregnancy or conception.

Study tool

Data were collected using a preformed validated structured questionnaire. A questionnaire was developed dealing with woman's demographic profile, socio-economic status, obstetric profile, knowledge of contraception, negative or positive attitude towards contraceptive use, usage of contraception, type of contraception ever used, and reasons for nonuse or discontinuation of contraception. Socio-economic status was derived using the modified Kuppuswamy scale.[7] The questionnaire was developed in English and translated into the local language. The questionnaire was explained to each participant wherever required. For data analysis, the questionnaire was retranslated to English. The data so obtained was analyzed, compared, and conclusions were drawn.

Statistical analysis

Data analysis was performed using the IBM SPSS Statistics for Windows, Version 20.0 (IBM Corp., Armonk, New York, United States). Descriptive statistics was used to describe data. The data were analyzed as mean and as measures of frequency and percentages in the tables and charts. Differences between variables were assessed using the Chi-square test with or without Yates correction for categorical data. A P value of <0.05 was considered as statistically significant.

Results

A total of 300 women seeking abortion or presenting with incomplete abortion were interviewed during the study period. Out of 300 women, 16 did not give consent, 10 had medical/obstetric indications for abortion, and 18 presented with spontaneous abortion. After proper exclusion, total 256 pregnant women were recruited out of which 188 came seeking induced medical abortion and 68 presented with incomplete abortion following MTP.

The socio-demographic characteristics of the women in the study are shown in Table 1. The mean age of study participants in our study was 24.26 ± 2.12 years. Maximum women were married (80.5%) and belonged to the rural community (58.6%). The majority of women had completed secondary and higher secondary education. Women seeking abortion or with incomplete abortion were mostly parous [Table 2]. 82% of women had at least one living issue.

The knowledge, attitude, and practice of contraceptive use were extracted from the study participants through the

questionnaire [Table 3]. The most common contraceptive methods used previously in these women were oral contraceptive pills followed by the barrier method of contraception [Table 4]. The association between socio-demographic characteristics and contraceptive use was derived from the Chi-square test and *P* value calculation [Table 5]. Women were enquired about various reasons for not using or discontinuing reversible methods of contraception. Unplanned sex or infrequent sex was the most common reason for the nonuse of contraceptives seen in 48.4% of cases [Figure 1].

Table 1: Socio-demographic characteristics (*Modified Kuppuswamy scale)

Variables	Number (*n*=256)	Percentage (%)
Age (in years)		
18-25	118	46.1
26-35	88	34.4
36-45	50	19.5
Residence		
Urban	72	28.1
Urban slum	34	13.3
Rural	150	58.6
Marital Status		
Married	206	80.5
Unmarried	32	12.5
Divorced/separated/widowed	18	7.0
Education		
No formal education	10	3.9
Primary	23	9.0
Secondary	125	48.8
Higher secondary and above	98	38.3
Socio-economic class*		
Upper class	26	10.2
Upper middle	36	14.1
Lower middle	78	30.5
Upper lower	76	29.7
Lower	40	15.6

Table 2: Obstetric profile of women seeking MTP; P stands for parity

	Frequency (*n*=256)	Percentage (%)
Gestational Age		
First trimester	239	93.4
Second trimester	15	5.8
Third trimester	02	0.8
Parity		
P_0	41	16.0
P_1	124	48.4
P_2 and above	91	35.5
Previous induced abortions		
Yes	76	29.7
No	180	70.3
Living issues		
Yes	210	82.0
No	46	17.9
Last childbirth		
<6 months	44	17.2
6 months to <12 months	68	26.6
1 year-5 years	72	28.1
>5 years	72	28.1

Discussion

India accounts for 17.7% of the world population, whereas it occupies just 2.4% of the world's surface area.[8] India was the first country in the world to have launched the National Family Planning Programme in 1952. Over the years, the program has undergone a transformation and expanded its goals and objectives. There are various contraceptive methods available free of cost through all levels of public sector facilities. In this era of advanced technology and communication, knowledge, awareness, and accessibility to family planning methods is not an issue. However, reversible contraceptive usage has not been up to mark in the Indian population.[9]

Unmet needs arising from barriers to contraceptive use can lead to a rise in unintended pregnancies. At the same time, safe abortion services are provided by the both public and authorized private health sectors. Therefore, there is an upsurge in women opting for MTP. Our study focused on reviewing the pattern of contraceptive practices including the awareness and attitude towards the same in women seeking MTP at our department. The reasons for the nonuse of contraceptives in these sets of women were also analyzed.

In the present study, the majority of women opting for induced abortion were in the age group of 18 to 25 years. The mean age was 24.26 ± 2.12 years which was lower as compared to the mean age of 28.14 ± 5.5 found in another study.[10] More than 90% of our study subjects were literate though from a rural background, a finding which was similar to studies from India and Egypt.[11,12] Based on the modified Kuppuswamy scale, women mainly belonged to the lower middle and upper lower classes.

There was a demonstrated rise in abortion-seeking behavior after parity two, and a peak after parity four.[2] However, in our study, this behavior was at its peak in primipara. Around 29.7%

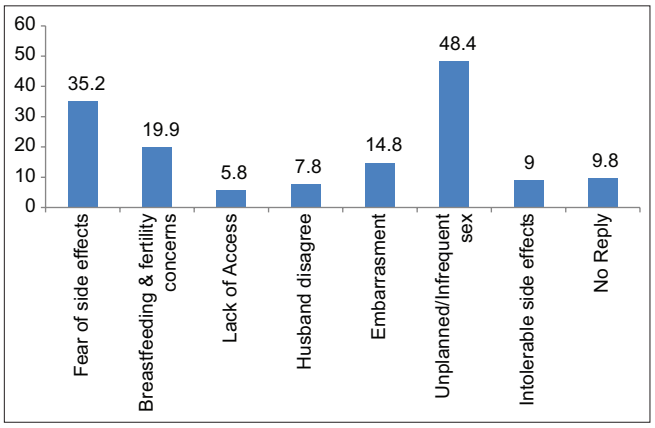

Figure 1: Reasons for nonutilization or discontinuation of contraceptives. The values are expressed in percentage

Table 3: Knowledge, attitude, and practice of contraception among study participants

	Frequency (*n*=256)	Percentage (%)
Knowledge about contraceptives		
Yes	254	99.2
No	02	0.8
Attitude		
Positive	163	63.7
Negative	73	28.5
Not sure	20	7.8
History of contraceptive use		
Yes	112	43.8
No	144	56.2
Intention for post-abortion contraceptive utilization		
Yes	175	68.4
No	47	18.4
Not decided	34	13.2

Table 4: Use of various contraceptive methods in the past in women with induced abortion

Contraceptive methods	Frequency (*n*=112)	Percentage (%)
OCP	45	40.2
IUCD	15	13.4
Injectable	16	14.3
Barrier	24	21.4
Emergency	08	7.1
Natural†	04	3.6

†Natural methods: breastfeeding, withdrawal, calendar method. OCP=Oral contraceptive pill, IUCD=Intrauterine contraceptive device

of women had undergone previous induced abortions, a finding consistent with another study.[13] Most women sought an abortion in their first trimester which tallied with the Ethiopian study.[5]

All but two women were aware of one or the other methods of family planning available for spacing or delaying childbirth. Around 63.7% of women in our study had a positive attitude towards contraception. Descriptive studies reported that the majority of women in their study population had good knowledge and a favorable attitude toward contraceptive use.[14,15] However, mere knowledge of family planning methods did not always correlate with high usage of the same.[16] Despite high knowledge and attitude, a history of contraceptive use could be elicited in only 43.8% of our study subjects. Studies done in Missouri (US) and Cape Town (South Africa) revealed that 37% and 44.1% of the study participants, respectively, reported utilizing contraceptives before the current pregnancy.[17,18] The most common method of contraception was oral contraceptive pills followed by barrier methods which accords with a study from Sikkim.[11] Condom was the preferred method in other Indian studies.[2,4]

Family planning interventions should not only take into account the health aspects but also socio-demographic characteristics of the women before evaluating family planning method preferences.[19] Women's age and socio-demographic attributes were associated with the utilization of family planning methods.[20] We found a significant association between contraceptive use and the age of women, residence, and marital status. Education and socio-economic status were not significantly associated with contraceptive usage similar to another Indian study.[21]

Table 5: Association between socio-demographic characteristics and family planning practices among study participants

Socio-demographic characteristics	Use of contraception (*n*=112)	Did not use any contraceptives (*n*=144)	Chi-square	*P*
Age (in years)			16.967	0.0002 Significant
18-25	40	78		
26-35	54	34		
36-45	18	32		
Residence			15.324	0.0004 Significant
Urban	44	28		
Urban slum	08	26		
Rural	60	90		
Marital Status			9.884	0.0071 Significant
Married	100	106		
Unmarried	08	24		
Divorced/separated/widowed	04	14		
Education			1.796	0.615
No formal education	04	06		
Primary	09	14		
Secondary	60	65		
Higher secondary and above	39	59		
Socio-economic class			0.698	0.951
Upper class	12	14		
Upper middle	14	22		
Lower middle	36	42		
Upper lower	32	44		
Lower	18	22		

"Unplanned sex or infrequent sex" was the most common reason for the nonuse of contraceptives in our study. "Fear of side effects" and "breastfeeding or fertility concerns" were the other important factors contributing to nonutilization in women seeking MTP. The demographic and health survey of low and middle-income countries (LMIC) showed "health concerns" and "infrequent sex" as the most prevalent reasons for the nonuse of contraceptives.[6] Dedicated pre-abortion contraceptive counseling, male partner counseling, and addressing side effects of modern contraceptive methods have been associated with increased contraceptive use.[22] Proper knowledge and counseling about contraceptives can be provided to the women by specialists as well as general physicians in Indian settings where there is a dearth of specialist care.

The strength of our study was that it targeted the group of women seeking induced abortion who are most vulnerable to poor family planning practices. The limitation of the study is its cross-sectional design and the inherent recall bias.

Conclusions

Maternal health can be improved and maternal mortality reduced through quality reproductive health and family planning services. When the use of contraceptives is low, there is a rise in unintended pregnancies and induced abortions. Studying the knowledge, attitude, and patterns of contraceptive practice in women seeking induced abortion can help identify the barriers to contraceptive use. Even though a large proportion of study participants were aware of these services made available to them through public health sectors, utilization of reversible contraceptive methods remained lower than targeted. Unplanned sex and fear of side effects were the major grounds for nonuse or discontinuation of various contraceptive methods and socio-demographic variables had a significant impact on utilization.

Adequate information and instructions on contraceptive methods and reproductive biology should be provided to the users to enhance their knowledge. Good quality knowledge provided by health care providers can help them choose a suitable method and at the same time ward away undue fear of side effects. Family planning policies should consider the socio-demographic characteristics, contraceptive barriers, and the various reasons for the nonuse of contraceptives while implementing effective interventions.

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Ethical approval

The study has been approved by the Institutional Ethics Committee, Fakir Mohan Medical College & Hospital (FMMCH), Balasore vide an approval number 37/IEC dated 18/08/2020.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the women have given their consent for their clinical information to be reported in the journal. The women understand that their names and initials will not be published and due efforts will be made to conceal their identity.

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Conflicts of interest

There are no conflicts of interest.

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