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## Original Research Article

# Post abortion contraceptive behavior among Indian women

Nutan Kumari, Mili Dutta\*, Chander Shekhar

Department of Fertility Studies, International Institute for Population Sciences, Mumbai, Maharashtra, India

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**\*Correspondence:**

Dr. Mili Dutta,

E-mail: [duttamili90@gmail.com](mailto:duttamili90@gmail.com)

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### ABSTRACT

**Background:** Unsafe induced abortion contributes significantly to maternal morbidity and mortality. Irrespective of availability of contraceptive services women still seek for repeated induced abortion. This study examined the contraceptive behavior of currently married women who had induced abortion.

**Methods:** Third round of District Level Household and Facility Survey (DLHS-3, 2007-2008) data is used for the study. Bivariate analysis and multivariate logistic regression method were used to examine the contraceptive behavior of women.

**Results:** Contraceptive use is 4.6 percent among women who had at least one induced abortion. Attitude toward the use of contraceptive was found significant among women aged 25-34, who had one and two or more children, urban women, non-poor, couple both literate and women exposed to mass media.

**Conclusions:** This study suggests the need for proper post-abortion contraception counseling and availability of multiple choices of modern methods of contraceptive among women.

**Keywords:** Contraceptive behavior, Currently married, India, Induced abortion

### INTRODUCTION

Induced abortion has been practiced in one form or another from the beginning of human society. However, recently the practice of induced abortion appears to have increased significantly in many countries of the world. Estimates indicate that approximately 70 million of the 205 million pregnancies yearly end in abortion. Of these, 42 million are induced abortion.<sup>1</sup> Of the total induced abortions, a large share takes place in the developing countries using unsafe contraceptive method.<sup>2</sup> Although decriminalization of abortion feature of evolving the legal system in many parts of the world, the law still restricts induced abortion in many third world countries.<sup>3</sup>

In India, under the 1971 Medical Termination of Pregnancy Act, a woman can legally obtain an induced abortion if her pregnancy can bring the risk of grave physical injury, threatens her mental health, is likely to produce a child with physical or mental abnormalities, is

the result of contraceptive failure among married women and rape.<sup>4</sup> India accounts for 6.4 million induced abortion and approximately 4 million spontaneous abortions each year, most performed in unsafe conditions and often without any contraceptive counseling or services.<sup>5-7</sup>

Although women request abortions for various reasons for these qualitative studies conducted as part of the abortion assessment project across multiple states in 2002, the majority of unintended pregnancies that were resolved through abortion occurred during periods when few were reportedly due to contraceptive failure.<sup>8</sup>

Non-use of contraception often reflects an inadequate or uneven supply of contraceptive services, particularly temporary by unequal power structures within families that restrict women's access to contraceptive information and services and prevents women from being able to negotiate contraceptive use.<sup>9</sup>

In many countries, the pattern of post-abortion contraceptive use differs. In Brazil, the contraceptive acceptance and use are high when post-abortion family planning services are provided.<sup>10,11</sup> But this is far from reality for the majority of women in countries with restrictive laws toward induced abortion.<sup>12</sup> In Nigeria, for instance, one-fifth of post-abortion women received family planning counseling, whereas only 3% received contraceptive method.<sup>13</sup> The only observational study conducted in Brazil assessed the poor quality of post-abortion care, as only 7.9% of women received a prescription for a contraceptive before hospital discharge.<sup>14</sup>

A study of state Kerala in India reported that the number of induced abortion is increasing every year. Despite a very high female literacy and contraceptive prevalence of more than 60%, many married women opt for abortion to limit their size and for spacing.<sup>15</sup> The present study is determined to examine the post-abortion contraceptive behavior of currently married women.

## METHODS

For the present study, data has been taken from the third round of District Level Household and Facility Survey (DLHS-3, 2007-2008). DLHS-3 is one of the largest ever demographic and health surveys carried out in India, 0.7 million households covering all with a sample of 7, 20,320 households from 34 states and union territories of India (excluding Nagaland). From these households, 6, 43,944 ever married women aged 15-49 years and 1, 66,260 unmarried women aged 15-24 years were interviewed. DLHS-3 also provides data on currently married women aged 15-44 years and ever-married women (age 15-49).

The ever-married women's questionnaire sought information on women's characteristics, maternal care, immunization and child care, contraception and fertility preferences, retroactive health including knowledge about RTI/STI and HIV/AIDS. Data were taken on abortion and contraceptive behavior of currently married women (60, 40,804) in ages 15 to 49 years; they are used as a proxy in further analysis.

### Dependent variable

The dependent variable for the study is taken as contraception use among currently married women aged 15-49 experienced at least one induced abortion. The contraception use is categorized into two including "non-using any contraceptive method" and "using any contraceptive method."

### Independent variable

The independent variable taken for the study are age-group of women (15-24, 25-34, and 35-39), number of children (No child, 1, and 2-3), place of abortion (Public,

Private, and other), place of residence (Rural, Urban), Religion (Hindu, Muslim, and Others), Caste/tribe (Scheduled caste, Scheduled tribe, and Other backward class), Wealth index (Poor, and Not Poor), couples education (Both illiterate, Only husband literate, Only wife literate, and Both literate) and mass media exposure (No exposure, and exposure).

### Statistical analysis

Bivariate analyses were performed to determine the post-abortion family planning used, reasons for not using contraception by background characteristics of women and women currently not using prefer to use in future. Multiple logistic regression has performed to identify the key determinants of contraceptive use among currently married women experienced at least one induced abortion.

## RESULTS

Table 1 portrays the percentage distribution of family planning method used by currently married women aged 15-49 years who had gone for induced abortion.

**Table 1. Percentage distribution of currently married women aged 15-49 years using family planning method after abortion by type of method.**

Family planning method	Never had abortion	One abortion	More than one abortion	Total no.
Permanent*	0.2	0.2	0.1	575
IUD	3.1	6.2	5.3	9822
PILL	0.3	0.3	0.4	882
Condom	9.6	18.0	17.2	29071
Injectable	6.7	12.3	12.5	23317
Other	11.8	18.1	20.4	40477
Not using	68.3	44.9	44.1	231357
<b>Total</b>	<b>323972</b>	<b>8493</b>	<b>3036</b>	<b>335501</b>

\*permanent include male and female sterilization

The proportion of women not using any family planning method is higher among women who never had an abortion compared to women who ever had an abortion. Other methods are more used followed by condom among all women.

The family planning methods are used pattern is same for women who never had an abortion, had at least one abortion and had more than one abortion.

Table 2 is showing the logistic regression results of likelihood estimates of contraceptive use among currently married women aged 15-49 years after an abortion by background characteristics. Contraceptive use among women is significantly higher in the age group 25-34 (OR 1.321) compare to women in the age-group 15-24.

Contraceptive use significantly increased with the increase in the number of children.

**Table 2: Logistic regression results, likelihood estimates of contraceptive use among currently married women aged 15-49 years after abortion by background characteristics of, India.**

Background Characteristics	Exp( $\beta$ )	95% C.I for exp ( $\beta$ )	
		Lower	Upper
<b>Age</b>			
15-24 <sup>®</sup>			
25-34	1.321*	0.985	1.771
35-49	0.988	0.645	1.514
<b>Number of Children</b>			
No child <sup>®</sup>			
1	11.879***	6.623	21.305
2-3	13.019***	6.968	24.324
<b>Place of abortion</b>			
Public <sup>®</sup>			
Private	0.878	0.668	1.153
Other	1.122	0.716	1.759
<b>Place of residence</b>			
Rural <sup>®</sup>			
Urban	1.694***	1.311	2.191
<b>Religion</b>			
Hindu <sup>®</sup>			
Muslims	1.257	0.853	1.852
Others	1.084	0.671	1.750
<b>Caste/tribe</b>			
Scheduled caste <sup>®</sup>			
Scheduled tribe	1.106	0.613	1.994
Other backward class	0.787	0.546	1.135
Other castes	1.082	0.746	1.571
<b>Wealth index</b>			
Poor <sup>®</sup>			
Not poor	1.462*	0.990	2.160
<b>Couples education</b>			
Both illiterate <sup>®</sup>			
Only husband literate	0.934	0.524	1.662
Only wife literate	1.747	0.759	4.020
Both literate	2.196**	1.256	3.839
<b>Mass media</b>			
No exposure <sup>®</sup>			
Exposure	1.451**	1.099	1.916

<sup>®</sup> Reference category; Level of significance\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

The women having one child and two or more children increased the likelihood of contraception use by 11.88 and 13.02 odd times respectively. According to the place of residence, the women residing in the urban area are 1.694 odd times more likely to use contraception than the women residing in the rural area. Women belonging to the non-poor section are 1.462 odd times more likely to use contraception than their counterpart of poor is.

However, according to couple education, contraceptive use is high among the couple when both are literate (OR 2.196) compare to a couple when both are illiterate. The women exposed to mass media are 1.451 odd times more likely to use contraception compare to the women not exposed to mass-media. Interestingly, other factors such as place of abortion, religion, and caste/tribal were not found to be associated with the use of contraceptive method.

Table 3 portrays the percentage distribution of reasons for not using contraceptive method among currently married women aged 15-49 years who had induced abortion by background characteristics of women. Women reported method-related reason (33.9%) followed by fertility related reason (32.5%) as the major barrier for not using a contraceptive method.

Table 4 presents the future contraceptive method preference among currently married women aged 15-49. Women preferred permanent method over temporary method for both using within 1-2 years and for more than 2 years. However, more than seventy percent of women are undecided on using the temporary method in future.

## DISCUSSION

The present study has shown postabortion contraceptive behaviour among currently married women. The study revealed that the women aged 25-34 are more likely to use contraceptive methods than the women aged between 15-24. This finding is supported by the study conducted on 2326 public-sector health facilities in eight African and Asian countries.<sup>16</sup> The higher the number of children, the higher the likelihood of using contraception. The likelihood of contraception use increases if the women belonging to non-poor section compare to its counterpart poor. Literacy among both husband and wife increases the contraception use after abortion among women. Exposure to mass media is also playing a determining factor of use of contraception after abortion among women.

Method related reasons are the leading cause for not using postabortion contraception. The higher percentage of currently married women preferred permanent methods for both using within 1-2 years and more than 2 years. More than seventy percentage of currently married women are undecided on using the temporary method in future. Post-abortion contraceptive, a critical component of comprehensive abortion care, includes contraceptive counseling and provision of methods.

The post-abortion contraceptive is still being treated as part of family planning services rather than as a component of maternal health. This perspective ignores the potential risks to the maternal mortality and morbidities associated with narrow pregnancy intervals and results in a missed opportunity for intervention.

**Table 3. Percentage distribution of reasons for not using contraceptive method among currently married women aged 15-49 years who had induced abortion by background characteristics, India.**

Background characteristics	Infrequent sex	Fertility related reason	Religious reason	Method related reason	Total number
<b>Age</b>					
15-24	10.9	28.0	23.2	37.9	119
25-34	22.5	35.3	11.2	31.0	329
35-49	20.7	35.3	11.2	31.0	174
<b>Number of Children</b>					
No child	21.4	35.7	3.6	39.3	16
1	18.6	34.2	16.3	30.9	251
2-3	20.7	31.1	12.2	36.0	355
<b>Place of abortion*</b>					
Public	17.5	34.0	15.7	32.8	193
Private	21.6	32.8	10.9	34.7	320
Other	20.9	30.2	15.5	33.3	77
<b>Place of residence</b>					
Rural	21.8	32.8	12.2	33.3	485
Urban	15.8	32.2	13.7	33.9	137
<b>Religion</b>					
Hindu	21.9	31.3	12.8	34.1	498
Muslims	10.9	35.6	17.2	36.2	93
Others	14.3	44.6	17.9	23.2	31
<b>Caste /tribe*</b>					
Scheduled caste	22.8	34.9	15.3	27.0	105
Scheduled tribe	17.3	24.0	20.0	38.7	45
Other backward class	19.4	32.7	12.4	34.8	310
Other castes	20.1	31.8	12.4	35.8	152
<b>Wealth index</b>					
Poor	23.5	25.0	14.2	37.3	212
Not poor	18.2	35.7	13.6	32.4	410
<b>Couples education</b>					
Both illiterate	17.5	19.1	15.8	47.5	108
Only husband literate	22.5	33.6	12.4	31.6	184
Only wife literate	26.5	44.1	8.8	20.6	19
Both literate	18.7	35.7	14.1	31.6	311
<b>Mass media*</b>					
No exposure	24.4	27.8	12.0	35.7	164
Exposure	15.2	35.4	14.3	35.1	225
<b>Total</b>	<b>19.8</b>	<b>32.5</b>	<b>13.8</b>	<b>33.9</b>	<b>622</b>

\*Missing value

**Table 4: Percentage distribution of currently married women aged 15-49 years not using contraceptive by contraceptive method they prefer to use in future, India, DLHS-3, 2007-2008.**

Future contraceptive method preference	1-2 years	More than 2 years	Undecided	Total No.
Permanent	45.0	9.0	46.0	478
Temporary	25.3	2.6	72.1	88
<b>Total</b>	<b>42.0</b>	<b>8.0</b>	<b>50.0</b>	<b>566</b>

The study added some empirical finding on the contraceptive used among women who had induced

abortion. This study reveals that still there is a need to focus on the unmet need for the modern method of contraception in India. The government should increase the methods availability, train providers on newly introduced methods, integrate evidence-based guidelines into contraceptive recommendations, and educate women and their communities about the safety and efficacy of new contraceptive methods. There is need to draw attention to the side effects of repeated induced abortion among women.

However, for understanding these issues in a comprehensive way, Qualitative in-depth studies on clinical examination need to be conducted.

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