Research Article

Perceptions about pill use among former users of oral contraceptives in a Tertiary Care Centre of Gujarat state

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Abstract

Background: Oral contraceptive pills (OCPs) continue to be an underutilized spacing method with a high non-compliance rate, the reasons for which still needs to be explored.

Objective: To assess the awareness, attitudes, and beliefs about the pills and to study the occurrence of side effects among former users of the pills.

Materials and Methods: The study was conducted in a tertiary care centre of Gujarat state during August 2015 to December 2015. Postnatal mothers admitted in the hospital during the study period and who had previously used one or more cycles of OCPs for the purpose of family planning were interviewed for study purpose.

Result: Of the 84 mothers interviewed, over one-fifth (22%) of them were not provided any counseling before prescribing OCP. Although over 80% of the mothers reported to be satisfied with OCP use, only 61% of the mothers agreed to use it again if needed and even less than half of the mothers were ready to take it for prolonged period of time. Over one-thirds of the mothers (36.90%) believed that OCPs were stored in the body and there was a need to take a break after continuous use of 6 months or more. Over half of the former users of OCPs did not know what to do if they missed one or two consecutive pills in a cycle. Residence, education standards, past history of abortion, and duration of use of OCPs significantly affected the knowledge scores of the mothers.

Conclusion: The study participants had poor knowledge, several myths, and an unfavorable attitude toward pill use. Periodic counseling of the users of OCPs is needed to address their beliefs and concerns about pill use which will improve their compliance.

KEY WORDS: Awareness, attitude, beliefs, side effects, oral contraceptives

Introduction

Family planning can reduce maternal and neonatal mortality and morbidity by reducing the number of pregnancies, the number of abortions, and the proportion of unwanted births and thereby contribute to attainment of all of the eight Millennium Developmental Goals.[1,2] Oral contraceptive pills (OCPs) are one of the most popular methods of contraception worldwide. Over 100 million women across the globe are using OCPs because of their accessibility and reversibility. Also there is evidence that more than 84% of women during their life use one of the hormonal methods to prevent pregnancy.[3]

Despite the fact that India was the first country in the world to implement a national population control program in 1952, the country is still struggling to contain the baby boom.[4] Only 48.2% of currently married women aged 15–49 years were using any of the modern contraceptive method in India during 2007 and 2008, whereas the same was around 56.4% for Gujarat. Awareness about contraceptives plays a

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critical role in the use of family planning methods. In spite of a much higher level of awareness (86%) about the pills as a contraceptive, only 3.5%–4% of the beneficiaries were using it as a spacing method.[5]

Unfortunately, the efficacy of OCPs is limited by problems related to compliance with prescribed regimens, which is in turn related to knowledge about correct usage and the occurrence of adverse events. Failure rates of less than 1% have been reported in women who use pills effectively, whereas rates as high as 9% among those who do not use pills consistently or correctly. Second, some women do not use OCPs because of their incorrect perceptions regarding their utilization.[6] Side effects account to discontinuation among almost 50% of new OCP users about 6–12 months after the start.[3]

Among the spacing methods, OCPs are the most utilized contraceptive method second only to condoms (5.5%). About one in ten (11%) women had ever used pills.[5] However, OCPs are still an underutilized contraceptive in India, the reasons for which still needs to be explored. While there is a paucity of data about attitudes and beliefs regarding pill use in Gujarat, data from studies conducted in other parts of the world cannot reflect the same in Gujarat. So this study was conducted with the objective to assess the awareness, attitudes, and beliefs about the pills; and to study the occurrence of side effects among former users of the pills. It was hoped that the study might contribute to the existing literature, recognize barriers in using OCP and thereby assist the policy makers to strengthen the family welfare program.

Materials and Methods

This was a descriptive cross-sectional study, carried out at Obstetrics and Gynecology Department of a Medical College and Civil Hospital, Gujarat state from August 2015 to December 2015. Postnatal mothers admitted in the hospital during the study period, who had previously used one or more cycles of OCPs for the purpose of family planning and who agreed to be a part of the study were included in the study. The consent of all the subjects was taken prior to the study. Since this was an observational study and involved no intervention upon the participants, permission from ethical committee was not sought.

Data on sociodemographic profile, awareness and use of different contraceptives, their preference for OCPs, their attitude and beliefs regarding OCPs, and occurrences of side effects due to pill use were collected using a pretested, semistructured questionnaire. Independent variables were age, education, occupation, and obstetric profile of the woman. Dependent variables were awareness and beliefs of women regarding IUCD use. Data entry and analysis was carried out using MS-Excel 2007.

Awareness of the participants regarding OCPs was analyzed by asking the following questions: (1) Aware about the type of pill used, (2) Correct method of its use, (3) Able to enumerate at least two health benefits of pills other than family planning, (4) Able to describe the changes in menstrual bleeding pattern because of pill use, (5) Able to enumerate at least two of the side effects of pill use, (6) Knows what to do if she misses a pill, (7) Knows what to do if she misses two or more pills, (8) Knows the importance of seven black pills or withdrawal period of 7 days, (9) Contraindications of pills use, and (10) Knows at least two other modern methods of contraception. For each of the 10 knowledge-based questions about OCPs asked to participants, each correct response was given a score of one. Their performance was classified as good, average, or poor if their score was 8–10, 5–7, and 0–4, respectively. χ^2-test was used to find the association between knowledge scores and demographic variables for an alpha error of 5%.

Result

A total of 150 mothers were approached for interview during the study period. However, depending on the inclusion criteria and consent given by mothers, a total of 90 postnatal mothers were interviewed. Six forms with incomplete information were further excluded from the study. So finally the sample size achieved was 84 mothers. The mean age of mothers was 26.34 ± 3.15 years. More than half (59.52%) of mothers were above 25 years of age. Over two-thirds (70.23%) of the mothers were from urban areas and four-fifth (79%) of them belonged to Hindu religion. The mean years of schooling of mothers were 8.77 ± 3.75 years. More than half (52.38%) of the mothers had secondary levels of education or higher. Over three-fourths (77.38) of the mothers were house-wives. The mean parity of the mothers was 1.5 ± 0.82. About 16% mothers had past history of abortion.

Table 1 shows the profile of OCP use among the mothers. Health-care personnel were the primary source of information in about 55% mothers followed by friends and relatives in the remaining. Mass media played only a meagre role in creating awareness about OCPs. In only about a quarter (25%) of the cases the decision to use OCP as a contraceptive was made by the couple whereas in the remaining cases it was decided independently by the husband (27%), mother herself (38%), or the mother-in-law (9%). Over half (50–60%) of the mothers were aware of use barrier method or intrauterine device for contraception and 10%–25% of them had also used them in the past. However, none of the women had used injectable contraception. Over one-fifth (22%) of the mothers mentioned that they were not provided any counseling before prescribing OCP. More than half (56%) of the respondents mentioned that their blood pressure was not recorded prior to prescribing OCPs. The mean duration of use of OCP by the mothers was 20.45 ± 10.16 months [Table 1].

Table 2 shows the knowledge regarding method of use and Pros and Cons of OCPs among the mothers regarding OCP use. Table 3 shows the attitude of mothers regarding pill use. Over 80% of the mothers were satisfied with OCP use and were ready to encourage others to use the same.

Table 1: Profile of OCP use among mothers

Variable	Response (*N* = 84)	Percentage
Main source of information about OCP*		
Mass media	11	13.09
Friends and relatives	44	52.38
Health-care personnel	47	55.95
Decision-making for OCP use		
Couple	21	25
Husband	23	27.38
Herself	32	38.09
Mother in law	8	9.52
Method aware other than OCP*		
Condom	53	63.09
IUCD	43	51.19
Injectable methods	10	11.90
Permanent methods	60	71.42
Utilization of methods other than OCP in past*		
IUCD	8	9.52
Barrier	24	28.57
Injectable methods	00	0
Counseling provided before prescribing OCP	65	77.38
B.P. recoded before prescribing OCP	37	44.04
Duration of use of OCP		
<=1 years	50	59.52
>1 years	34	40.47

*Multiple responses.

Table 3: Attitude of mothers regarding OCP

Attitude of mothers about OCP use	Yes (*N* = 84)	Percentage
Feels satisfied with OCP use	74	88.09
Will encourage a friend to use OCP	72	85.71
Willing to take OCP same time	68	80.95
Willing to use it again if needed	52	61.90
Willing to take OCP for longer period (> 1 year) of time without any break	39	46.42

However only 61% of them agreed to use it again if needed and even less than half of them were ready to take it for prolonged period of time.

In this study, the major reasons for preference of OCPs over other methods as per the mothers were ability to revert fertility when needed (35%) and minimum user interference (32%). Other reasons were that OCPs could be easily controlled by mothers (25%) and it minimized bleeding during periods (15%) [Table 4].

Speaking of side effects, nearly half of the mothers (47.6%) reported no occurrence of any adverse events. The main side effect reported by mothers was weight gain in around 37% cases. The others were mood changes (15%), nausea (10%), headache (8%), breast tenderness (7%), dizziness (4%), changes in bleeding pattern during menstruation (3%), and facial pigmentation (3%) [Table 5].

The most common beliefs regarding OCP use among the mothers were that OCP were stored in the body (36.90%) and there was a need to take a break after continuous use for 6 months or more (33.33%). The other beliefs were OCPs harms the fetus (21.4%), leads to changes in sex drive (16.6%), causes infertility (16.6%), abortion (9.5%), or multiple births (4.7%) [Table 6].

Table 2: Knowledge of the mothers about various aspects of OCP

Knowledge regarding	Correct response *N* = 84	Percentage
Type of OCP used	72	85.71
On which day of MC you should start taking pills	79	94.04
Correct method of taking pills (same time each day)	71	84.52
What she should do if she misses a pill	72	85.71
What she should do if she misses two pills consecutively	37	44.04
Importance of seven black pills (Iron tabs)	57	67.85
Changes in menstrual bleeding pattern	21	25
At least two side effects of OCP	66	78.57
At least two advantages of OCP over other methods of temporary contraception	57	67.85
At least two other methods of temporary contraception	32	38.09

Table 4: Preference of OCP over other methods

Preference for OCP*	Yes (*N* = 84)	Percentage
Can be stopped any time when pregnancy is wanted	30	35.71
Minimum user interference	27	32.14
Controlled by women	21	25
Minimize bleeding	13	15.47

*Multiple responses.

Table 5: Frequency distribution of occurrence of adverse events due to OCP use among participants

Adverse events*	Encountered by participants (*n* = 84)	Percentage
Weight gain	20	**37.03**
Mood changes	13	**15.47**
Nausea	9	**10.71**
Headache	7	**8.3**
Breast tenderness	6	**7.14**
Dizziness	4	**4.76**
Bleeding pattern change	3	**3.57**
Facial pigmentation	3	**3.57**
No side effects	40	**47.61**

*Multiple responses.

Table 6: Beliefs regarding OCP use

Belief*	Yes (*N* = 84)	Percentage
OCP were stored in body/stomach	31	36.90
Need rest in between	28	33.33
Harm to fetus/birth defects	18	21.42
Change in sex drive	14	16.66
Infertility	14	16.66
Abortion	8	9.52
Multiple birth	4	4.76

*Multiple responses.

Table 7 shows the association of knowledge scores to various demographic variables. The residence, education standards, past history of abortion, and duration of use of OCPs significantly affected the knowledge scores of the mothers.

Discussion

Many studies have been conducted all over the world to study the knowledge and practice about contraception.[7–10] The main source of information about contraception in many of these studies conducted among adolescents was mass media which is contrary to this study where health-care personnel were the main source of information.[4,11] This difference is easily understood due to difference in demographic profile of study participants.

In this study, in only a quarter of cases both the husband and wife took the decision regarding the choice of OCP use whereas the same was reported to be over half the total cases by Takkar et al.[12] This difference was because only educated working women were the participants of study by Takkar et al. However, the choice of contraception must be a couple's decision and not that of any individual.

The awareness about contraceptive methods other than pills among former users of OCPs was strikingly low. This indicates that they were not provided with informed choice at the time of prescribing pills. In a study conducted across rural areas of India by ICMR task force, around half of the women had received counseling but in only one-fifth, an informed choice was provided.[13] In this study, although over three-fourths of the mothers reported that they were provided with some information on OCPs, only less than half of them mentioned that their blood pressure was recorded before prescribing pills. These findings indicate careless attitude of health-care providers toward adequate counseling and basic health checkups before prescribing hormonal pills [Table 1].

Lack of knowledge about various aspects of OCPs among the mothers is evident from Table 2. Over half of the former users of OCPs did not know what to do if they missed two consecutive pills in a cycle. This is a cause of concern and may increase the failure rate of OCPs. Similarly over two-thirds of the respondents were not aware of other spacing methods. These findings are consistent with those reported by Iftikhar.[6] In this study over three-fourths of the mothers were aware of at least two side effects and two-thirds of them were knowing the advantages of OCPs. These findings are consistent with that of Takkar et al. where about 80% participants were aware of advantages and disadvantages of contraceptive they used.[12] All these factors indicate the immediate need for counselling the clients to improve the compliance of the mothers toward OCPs [Table 2].

There are a wide range of psychological factors affecting the adherence to OCPs.[14] Attitude and beliefs toward OCPs are one of them. Over three-fourths respondents had positive attitude regarding OCP use which is a very encouraging finding. However, when it comes to using the same method again or using the same method for over 1 year the response was disheartening [Table 3].

Since OCPs gives autonomy to the mothers about family planning, they were preferred by over one-third of them. Also the non-contraceptive benefits offered by pills contributed noticeably toward its use as a contraceptive [Table 4].

None of the mothers reported the occurrence of any of the serious side effects such as thrombosis which is a very encouraging finding. However, over half of the mothers in this study agreed upon the occurrence of some minor side effects due to pill use. The pattern of occurrence of these side ef-

Table 7: Association of knowledge scores of the participants to various demographic variables

Demographic variables		Good (8–10)	Average (5–7)	Poor (1–4)	χ^2-test
Age in Years	<25, *N* = 34	11(32.35%)	17(50%)	6(17.64)	χ^2=1.014
	>25, *N* = 50	21(42%)	23(46%)	6(12%)	*p*=0.602
Residence	Rural, *N* = 25	2(8%)	17(68%)	6(24%)	χ^2=13.918
	Urban, *N* = 59	30(50.84%)	23(38.98%)	6(10.16%)	*p*=0.0009
Religion	Hindu *N* = 67	27(40.29%)	32(21.44%)	8(11.94%)	χ^2=1.698
	Others *N* = 17	5(29.41%)	8(47.05%)	4(23.52%)	*p*=0.43
Education	Up to primary *N* = 40	7(17.5%)	25(62.5%)	8(20%)	χ^2=13.799
	Secondary and above *N* = 44	25(56.81%)	15(34.09%)	4(9.09%)	*p*=0.001
Occupation	House wife *N* = 65	22(33.84%)	33(50.76%)	10(15.38%)	χ^2=2.204
	Employed *N* = 19	10(52.63%)	7(36.84%)	2(10.52%)	*p*=0.332
Parity	< 1 Para *N* = 42	15(35.71%)	23(54.76%)	4(9.52%)	χ^2 = 2.35
	More than one para *N* = 42	17(40.47%)	17(40.47%)	8(19.04%)	*p* = 0.307
Abortion	No abortion *N* = 70	29(41.42%)	34(48.57%)	7(10%)	χ^2=6.705
	Past history of abortion *N* = 14	3(21.42%)	6(42.85%)	5(35.71%)	*p*=0.034
Duration of use	<1 year *N* =50	21(42%)	26(52%)	3(6%)	χ^2=6.929
	>1 year *N* = 34	11(32.35%)	14(41.17%)	9(26.47%)	*p*=0.031

fects was consistent with those reported by other studies.[3,5,15] A study from the USA reported that occurrence of side effects was responsible for discontinuation of pills in around one-third participants.[16,17] However, some studies also reveal that occurrence of these side effects could be minimized by proper counseling prior to prescribing pills and during the follow-up period[3,18] [Table 5].

Former users of pills in this study had many myths about OCPs as represented in Table 6. Similar findings were also reported by Kirkconnell et al. in their study in rural areas of India.[16] Addressing the myths regarding the use of OCPs would help a great deal in improving the acceptance rates of OCPs [Table 6].

Regarding the knowledge of mothers about OCPs, only 38.09% mothers had satisfactory knowledge (score of 8–10). Mothers educated up to secondary and above (p = 0.00) had significantly higher levels of knowledge regarding OCPs. Similarly mothers from urban areas (p = 0.00) and those with no history of abortion (p = 0.03) scored significantly higher on knowledge assessment. This was because mothers from urban areas were more educated as compared to those from rural areas. This finding is consistent with the study of Iftikhar et al. which states that "women who had a higher educational attainment were more likely to have satisfactory knowledge about OCPs".[6] Similarly mothers who had used OCPs for less than a year (p = 0.03) had scored significantly more on knowledge scores which possibly indicated the need for periodic assessment and counselling of OCP users.

Conversely, there was no difference in knowledge scores among mothers of different age groups (p = 0.6), religion (p = 0.4), occupation status (p = 0.3) or parity status (p = 0.3) [Table 7].

This study has some limitations that should be taken into consideration for future study designs. Since this was a single-centre hospital-based study, the findings cannot be extrapolated to the whole of Gujarat. Our sample was not representative of all the strata of the society, particularly the higher class. Also the study being descriptive in nature, it relied upon the responses from the mothers. Hence it's results need to be interpreted with caution. However, the overall results of the study defiantly add to the gamut of knowledge on the subject.

Conclusion

Former users of OCPs had large gaps in knowledge about pill use. Several myths along with unfavorable attitude were widely prevalent. The study highlights the need for addressing the beliefs and concerns for effective and appropriate use of oral contraceptives. Prior information about side effects would help in improving the compliance. Education had a highly significant effect on knowledge scores of mothers. Programs to boost education status among the girl child needs to be encouraged as this would eventually complement the national family welfare program.

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