

Continuation Rates, Complaints and Reasons for Discontinuance Relating to Contraceptive Pills: An Indian Experience

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ABSTRACT

The final outcome of a nationwide study of oral pills, initiated in 1967 with over 300 experimental-cum-demonstration projects all over the country, is awaited. The findings of this nationwide study will of course, determine whether or not the pills will be included in the indian official family planning programme. The findings of the present study, within their limited scope, however, do not sound a note of optimism. The continuation rates for different periods of use are low. By the end of one year almost half of the women were found to have discontinued the pills, and by the end of two years this percentage went upto 66. It was also found that about half of the women had given up the pills due to reasons directly related to its use. A little more than three fourth of the women had complained of at least one side-effect. These findings clearly demonstrate that greater motivational efforts and adequate medical follow-up of the pill users will have to be made to make the pills acceptable to the Indian women. The experience of developed countries indicates that

if the contraceptive pill is used regularly, it ranks high as a method for preventing pregnancy.

INTRODUCTION

The Indian family planning programme is committed to the "Cafeteria approach" which makes all the methods of family planning available to the people. In actual practice, however, the strategy is to concentrate mainly on three methods of fertility control the intra-uterine contraceptive device (IUCD), male and female sterilization, and Nirodh (condom). Up to the end of May 1972 over 4.3million IUCD insertions and 10.9million sterilizations have been performed. Over 9million condoms are at present being distributed monthly through the commercial and free distribution channels. It has been estimated that about 8 percent of the total married couples in the country are currently covered either by the IUCD or by sterilization offered by the programme.

The contraceptive pills, however, are still not included in the general services offered by the family planning programme. A nationwide

study of the pill was initiated in August 1967 with over 300 experimental-cum-demonstration projects. Till recently, the oral pills could be prescribed only for treatment of menstrual disorders. A study (George, 1967) carried out in 1967 at the International Institute for Population Studies, Bombay, India, however indicated that though not approved as a contraceptive at the time of the survey, private medical practitioners in Bombay frequently prescribed them for family planning purposes. Today, pills can be bought in the open market against a prescription from a registered medical practitioner.

The success of any pill programme would depend on the extent to which the pill was acceptable to the women as a method of fertility control—a method which required daily administration and caused certain side effects. The present paper, based on a follow-up study conducted in Bombay in 1968, is oriented to cover the following aspects regarding pill acceptance:

- A. Month-specific continuation rates.
- B. Reasons for discontinuance.
- C. Complaints due to the use of pills with special reference to the month of onset.

MATERIALS and METHODS

The International Institute for Population Studies conducted a follow-up survey of pill acceptors in Bombay in 1968. For this purpose local hospital, where contraceptive pills were being supplied for research purposes since 1962, was selected. The study was conducted in two stages. In the first stage, the clinic case cards of all the 426 women, who had accepted the pills between April 1962 and August 1967, were analysed. These clinic case cards contained information about the woman's age, her socio-economic traits, menstrual and obstetrics history, use of contraception prior to pill acceptance,

complaints due to pill use (if the pill was discontinued).

In the second stage, the pill acceptors were followed up in their homes with the help of a pretested schedule. In addition to the detailed information on the items covered in the clinic case cards, questions relating to motivation aspects of pill acceptance and current contraceptive practice of discontinued users were canvassed. The total number of women who could be followed-up was 336. The remaining 84 women were lost to follow-up due to reasons such as the woman moved away, address could not be located, woman died etc. This paper relates to the information collected from 334 women as 2 women reported to the interviewers that they had never used the pills.

The mean age of the women covered in the study was 27.4 years and had on an average 3 living children at the time of pill acceptance—69.5 per cent of the women had one to three living children and four women did not have any child.

RESULTS and DISCUSSION

(A) Continuation Rates:

The contraceptive pill is known to have a high degree of use effectiveness in terms of prevention of pregnancy. Discontinuation is, however, known to be an important problem with the pill. A study of continuation rates, therefore, becomes important as programme success is dependent on them.

The month-specific cumulative continuation rates or the women under study were calculated according to life table method. A curve of the nature $f(t) = \frac{Q}{Q+t}$ was fitted (Susarla and Pat-hak, 1966) to the observed continuation rates. The parameter Q was estimated by the least square method and the value is given:

$$Q=12.1148$$

Both the observed and fitted values for the month-specific continuation rates are given in Table 1.

It is observed from Table 1 that two-thirds of the acceptors were found to be continuing with the pill up to six months, half of them

Table 1. Cumulative continuation rate per 100 acceptors

Month of use	Observed values	Fitted values
1	86.2	92.4
2	86.2	85.8
3	78.8	80.2
4	74.7	75.2
5	70.1	70.8
6	66.7	66.9
7	63.5	63.4
8	60.4	60.2
9	57.4	57.4
10	56.0	54.8
11	53.0	52.4
12	51.3	50.2
13	50.1	48.2
14	48.1	46.4
15	45.1	44.7
16	42.7	43.1
17	42.7	41.6
18	41.9	40.2
19	40.5	38.9
20	38.7	37.7
21	37.8	36.6
22	36.8	35.5
23	35.2	34.5
24	34.1	33.5
25	33.4	32.6
26	32.9	31.8
27	31.1	31.0
28	30.8	30.2

※ Chi-square test was applied to the data and the value obtained was $X^2=1.0415$ which was highly insignificant at 27 degrees of freedom. W. Parker Mauldin used a decay curve of the type $R=a.e^{-rt}$ which provided a remarkably well fit to the observed Cumulative continuation rates for IUCD (Studies in Family Planning, a publication of the Population Council, New York, Number 18, April 1967, p.7). This curve did not yield a good fit in the present case.

up to one year and one-third up to two years. It is evident that the values obtained on the basis of the fitted curve are very close to the observed values.※ The probability of continuing with the use of the pill, for a group of women,

Table 2. Distribution of women according to reasons for discontinuing the use of pill

Reasons for discontinuing the pills	Number of women	Percentage
1. <i>Use-Related Reasons</i>	100	51.6
i) Experience of side effect	97	50.0
ii) Became pregnant	3	1.6
2. <i>Other Reasons</i>	94	48.4
i) Personal:		
Planning for baby	26	13.4
Fear of side effects	9	4.6
Left on medical advice		
(unrelated to pill use)	9	4.6
Husband unfavourable	3	1.6
ii) No Need:		
Husband/wife got sterilized	4	2.1
Separated from husband	2	1.0
Intention of getting		
Sterilized	2	1.0
Death of male spouse	2	1.0
Reached menopause	1	0.5
iii) Physical:		
Pills not available at		
the clinic	3	1.6
Inconvenience to take a		
pill every-day/cannot		
visit clinic each month	14	7.2
iv) Miscellaneous:		
Went out of Bombay	19	9.8
Total	194	100.0

over time t is a waiting-time problem and the fitted curve only explains the continuation rates for 1 to 28 months of use.

(B) Reasons for Drop-Out:

Of the women followed-up, 194(58.1 percent) were found to have discontinued the pill at the time of the follow-up survey. The reasons given by them for discontinuance were grouped into two categories:

Table 3. Prevalence rates per 100 women for different complaints and distribution of women according to time of onset of specific complaint

Complaint	Prevalence rate per 100 women Number of rate women		Time of onset of complaints (Month of Use)									
			1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Giddiness	154	46.1	150 (97.4)	1 (0.6)	2 (1.3)	1 (0.6)						
Nausea	80	24.0	77 (96.3)	1 (1.2)		1 (1.2)		1 (1.2)				
Weakness, body pain	73	21.9	55 (75.3)	6 (8.2)	2 (2.7)	5 (6.9)		2 (2.7)		1 (1.4)		2 (2.7)
Side effect relating to amount of bleeding at menstruation	27	8.1	23 (85.2)	2 (7.4)			1 (3.7)	1 (3.7)				
Loss of Appetite	21	6.3	20 (95.2)	1 (4.3)				1 (4.8)				
Leucorrhoea	17	5.1	10 (58.8)	2 (11.8)	2 (11.8)			1 (5.9)	1 (5.9)			1 (5.9)
Pain in abdomen	10	3.0	8 (80.0)	1 (10.0)						1 (10.0)		
Body burning etc.	10	3.0	7 (70.0)	2 (20.0)								1 (10.0)
Withdrawal bleeding	7	2.1	4 (57.1)			1 (14.3)						2 (28.6)
Breakthrough bleeding	7	2.1	6 (85.7)	1 (14.3)								

Figures in bracket refer to percentages.

(1) Use-Related Reasons

(2) Other Reasons

The results are contained in Table 2.

More than half of the women had given up the pills for reasons directly related to pill use. Fifty percent mentioned side effects as the reason for giving up the pill and three women had become pregnant while on the pill. (For these it was not possible to establish regularity in the use of the pill). The percentage of women who had given up the pill for "Other Reasons" worked out to be 48.4 ('personal' reasons : 24.2 percent; 'no need' reasons : 5.6 percent, 'physical' reasons : 8.8 percent ; and, 'miscellaneous' reasons : 9.8 percent).

(C) Complaints:

Seventy-eight women (23.4 percent) did not report any side-effect due to pill use. The remaining women (76.6 percent) reported diffe-

rent types of complaints. For the sake of convenience, two types of analyses have been attempted:

1. prevalence rate of a complaint among the women followed up i.e. the percentage of women who reported a certain complaint.
2. Onset of specific complaints according to month use.

1. Prevalence Rate:

The analysis reflects that among the total women surveyed, every second woman complained of giddiness, every fourth woman complained of nausea and weakness and body pain, every twelfth woman reported a complaint relating to the amount of bleeding at the time of menstruation, every sixteenth woman reported loss of appetite and every twentieth woman reported leucorrhoea. Other complaints like pain in abdomen, bodyburning, withdrawal

and breakthrough bleeding were each reported by 7 to 10 women (See Table 3).

2. Time of onset of specific complaints:

Apart from having knowledge about the prevalence of a complaint due to pill use among its users, it is worthwhile to know as when the complaint was first experienced i.e. its onset by month of use. Most of the side effects associated with pill use, like giddiness, nausea and weakness, body pain and heavy/less amount of bleeding at the time of menstruation, were experienced in the very first month of use. (see Table 3). It would have been of considerable value to compute the month-specific complaint rate for each complaints to ascertain the real behavior and intensity of complaints reported but for the want of a substantial sample and longer period of observation, such analysis could not be obtained from the present data.

To sum up, this area specific small scale study does reveal that women are likely to stay with contraceptive pills for longer periods provided side-effects following pill use are

promptly allayed through adequate medication and better medical follow-up. Provision of sound medical follow-up is all the more important in initial months of use.

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