

SYMPTOTHERMIA VIS A VIS FERTILITY CONTROL†

by

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The need for fertility control for both inhibition and promotion of fertility cannot be overemphasised. Although prevention of uncontrolled fertility is a national priority to the family planners, the improvement of fertility for unfortunate individual couple is equally important.

Symptothermal control of fertility is based on relatively precise determination of ovulation time. It offers an unique opportunity for both fertile and infertile couples. It is a modified periodic abstinence or rhythm method, the modification is designed to increase the efficiency of the method. It recognises three phases in women's cycle. The pre-ovulatory phase with probable fertility, ovulation phase with highly possible fertility and a post ovulation phase of impossible fertility.

Materials and Method

The present study is a collaborative one under the aegis of Missionaries of Charity

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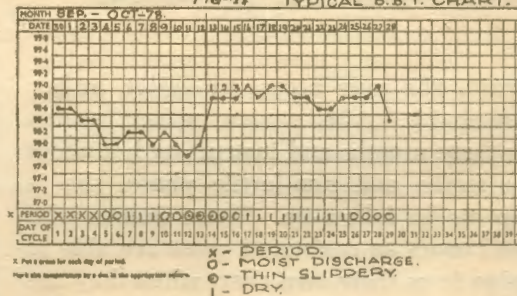
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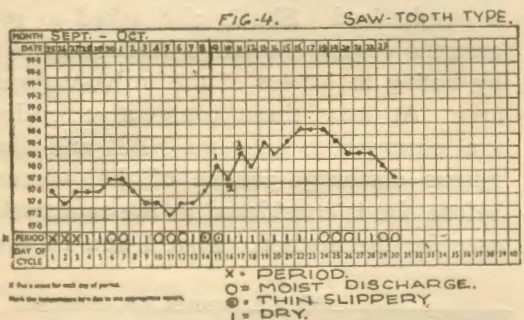
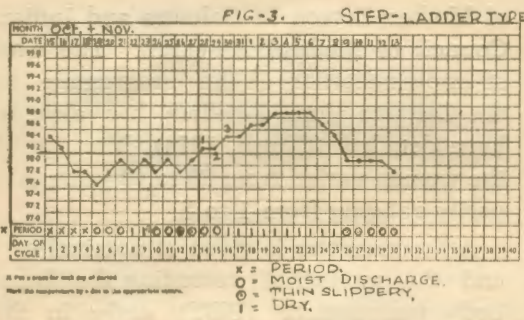
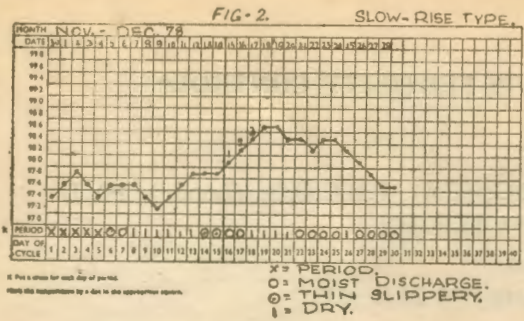
of Mother Teresa in Calcutta and Indian Council of Medical Research. The way of implementation of the programme in the Calcutta slum dwellers has already been detailed (Ghosh, 1976). The age of the women varied from 20 to 40 years and parity ranging from 1 to 8.

A thermometer is given at nominal cost and the method of recording the basal body temperature (BBT) early in the morning before getting up from the bed is emphasised. She is also asked to record the vaginal discharge (Mucorrhoea-) by noting moistness of the vulvo-vaginal area. At least three consecutive cycles are observed to note the BBT and the mucus discharge pattern of the women before she is considered as the registered case for the method. Figs. I and IV are

FIG-1. TYPICAL B.B.T. CHART.



some of the representative B.B.T. chart depicting simultaneously the nature of the vaginal discharge. Since this is voluntary method, the women are never coaxed or



this phase is over, the couple is regarded as autonomous and biweekly or weekly visiting is discontinued. She is supposed to look after herself without help. In case she needs any help, it is always available from the educators. After continued use of the method for 3 years the couple gets the certificate of proficiency. Sterility cases are enrolled for improving fertility by proper advice. The calendar cases are those still using rhythm method as per calendar dates.

Interpretation

The post ovulatory phase excluding the first 48 hours following the peak rise of temperature and ovulation vaginal discharge (thin slippery) is considered as absolutely infertile phase, whereas for infertile women, the ovulation time coincident with the peak slippery mucoid vaginal discharge and a slight drop of basal body temperature (BBT) followed by rise to 0.8°F or above is the most opportune time for sexual relationship. In and around Calcutta there are now 102 centres for Natural family planning set up by the Missionaries of Charity. In the matter of recording temperature, in many cases, the husbands record the temperature of their wives. For the Indian Council of Medical Research Project, since June, 1978, those who can record their own temperature are included in the study. Women with lactational amenorrhea are excluded. If both are unable to record the temperature an educator helps them. These are women with education of about 6 years in the school picked up from the locality, some of them were practising the method themselves for months or years. They are trained regularly in weekly meetings by the specially trained sisters and the period of training is for 3 months. Soon a motivated happy

forced, she may accept or reject, at her free choice. After reviewing her records for three months and instructing her about the fertile and non-fertile phase, she is kept under follow-up. These women who are known as registered cases are able to judge from their own chart when they are fertile or infertile. However, during the next 6 months the educators continue to check their infertile phase until the women understand the every possible variation in her cyclical pattern. Once

TABLE I
Symptothermic Method
STATISTICAL TABLE

REGION—Calcutta		YEAR 1977										
Headings	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
At month end												
1. New cases	297	300	286	270	210		331	268	321	240	236	—
2. Unregistered cases	1531	1630	1740	1826	1916		1670	1613	1459	1494	1435	1557
3. Registered cases	959	1211	1407	938	1108		1364	1752	2114	1522	1862	1976
4. Autonomous case	6869	6869	6869	7538	7538		7538	7538	7538	8476	8476	8476
5. Cases of Sterility	45	45	45	45	45		45	45	45	45	45	45
6. Calendar cases	194	116	118	118	118		118	122	112	125	128	129
TOTAL	9814	10171	10465	10935	10935		11068	11338	11602	11902	12182	12183

TABLE II
STATISTICAL TABLE

REGION—Calcutta		YEAR 1978										
Headings	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
At month end												
1. New cases	293	242	225	195	236	585	557	608	362	373	518	185
2. Unregistered cases	1213	1506	1748	1973	2168	2404	2989	3546	4154	4516	4889	4677
3. Registered cases	2320	2449	2751	3002	3057	3103	2495	3021	3265	3521	3827	4150
4. Autonomous case	8476	8476	8426	8676	8676	8626	9624	10824	10824	10824	10824	10824
5. Cases of Sterility	45	45	45	45	45	45	45	45	45	45	49	49
6. Calendar cases	287	287	287	287	287	287	287	292	292	292	292	292
TOTAL	12634	13005	13482	14078	14469	15050	15997	18336	18942	19571	20399	20177

couple teaches other neighbours and thus the training becomes a continuous one. The motivated women come to the centre every week with a small card recording the daily temperature. This is entered in the chart maintained at the centre by the educator. When the temperature rises and then remains high for at least 3 consecutive days, the woman is informed about the beginning of the infertile phase Figs. 1 and 2 illustrate the various types of basal body temperature encountered in this study.

Results and Discussion

Tables I and II show the statistical component of the women following the symptothermic method of family planning in 1977 and 78 respectively. From these one can see the gradually increasing trends of attendance from 9814 at the beginning of 1977 to 20,177 at the end of 1978. This is representative of the increasing acceptance and popularity of the method in the poor highly motivated people under good supervision.

Table III lists the results of the study in the year 1977 and 1978 respectively. In 1977 out of a total of 12,009 women using the method, only 36 had undesired pregnancy, the corresponding figure for 1978 was 34 pregnancy out of 19,843 women users in that year. Thus the failure rate of the method 0.29 and 0.20 pregnancy per 100 women users per year is ex-

tremely low in the two consecutive years.

In 1977, 108 women discontinued the method and in 1978 the number of drop outs were 113. Thus the discontinuance rate is less than 1 per cent (0.8 and 0.6 per cent respectively) during the two years under study suggest high satisfaction level of the method.

The improvement of fertility in infertility of 3 to 10 years duration is extremely encouraging. The proper timing of sex relation during the high fertile phase by simple advice was successful in achieving pregnancy. In 1978, 36 out of 45 cases of infertility became pregnant giving a success rate of 80 per cent which is no less an achievement of the method.

The ethnic distribution of the method and its acceptance by different creeds, Hindu, Muslim and Christians also underlines the popularity of the method (Table IV). The present study clearly suggests the use effectiveness of the method and its relatively small failure rate. Similar was also the experience of authors like Klaus *et al*, 1976 who stressed the use effectiveness of Billing's ovulation method (Billing *et al*, 1972) and the satisfaction level of the method. Their record of 147 women following the method for 2 years having unplanned pregnancy rate of 1.62 per cent of which only 0.14 per cent were attributable to the method failure is quite relevant. The continuation rate was 62.58 per cent. In view of the scientific basis of

TABLE III
Showing the Results of Symptothermic Fertility Control in 1977 and 1978

	1977	1978
Total number of women users	12,009	19,843
Failure rate:		
Pregnancy rate per 100 women users per year	36 (0.29 pregnancy per year)	34 (0.20 pregnancy per year)
Discontinuance rate	108 (0.8%)	113 (0.6%)
Successful pregnancy in infertility cases	36 out of 45 cases (80%)	36 out of 49 cases (71%)

TABLE IV
Showing the Ethnic Break-up and the Educators and Sisters Responsible for the Work

REGION—Calcutta	YEAR 1978											
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Hindus	4701	4949	5256	6781	5960	8250	7750	9780	9449	10342	10520	10354
Muslims	4296	4327	4406	4454	4596	4833	4940	5140	5222	5280	5360	5408
Christians	3637	3738	3820	3858	3900	3922	4011	4111	4170	4180	4208	4250
TOTAL	12634	13005	13482	15088	14456	17005	16701	19031	18841	19802	20088	20002

the ovulation method (Billing *et al*, 1973; Hume, 1974), natural family planning by Thermal, symptothermal or ovulation method merits a definite place in fertility control. The answer to the question, which one is the best can only be attempted following a well designed comparative study.

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