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Results of a Recent Study of the Sympto-Thermal Method of Natural Family Planning

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This project was supported, in part, by the Human Life and Natural Family Planning Foundation of Washington, D.C. Prof. Rice is a member of the biology department, Fairfield University, Fairfield, Connecticut, and Dr. Lanctot is with the department of Scientific and Community Medicine, University of Sherbrooke, Sherbrook, Quebec, Canada.

The sympto-thermal method differs from the older temperature method by adding to the basal body temperature (BBT) the observation of signs and symptoms of the ovulatory period (cervical mucus discharge at the vulva, pink discharge, ovulatory pain, breast tenderness and other symptoms).

The physical symptoms observed during the cycle are secondary to the BBT. However, the symptoms do help to develop self-knowledge and are occasionally helpful in the interpretation of difficult BBT graphs.

The cycle is divided into three phases: 1) relative infertile period; 2) fertile period; and 3) absolute infertile period.

The relative infertile period begins on the first day of the menstrual flow. The last day of the relative infertile period is calculated by subtracting 20 days from the shortest observed menstrual cycle among the last 12 reported cycles.

The fertile period extends from the last day of the relative infertile period until the third day following the temperature shift.

The absolute infertile period is calculated from the third day of the high temperature above the coverline until the next menses.

The coverline is determined by drawing a line one-tenth of a degree Fahrenheit above the most elevated normal temperature among the low pre-ovulatory recordings. Use of the term "normal temperature" is intended to rule out high temperature due to illness, excessive alcohol intake, restlessness, etc.

Selection of Participants

Since the primary objective of this study was the statistical evaluation of the biological effectiveness of sympto-thermal rhythm, a moti-

vated and informed group of participants was recruited for this initial study.

NFP associations in five different countries were selected for inclusion in the study: SERENA in Canada, Fundacion Carvajal in Colombia, Action Familiale in Maritius and the Natural Family Planning Association of Connecticut in the U.S.A. These associations were selected because they all had organized couple to couple movements in existence or were hoping to develop them and someone in the organization had expressed a willingness to collaborate and coordinate the project in their country.

Before acceptance as a participant in the study the couple had to meet the following eligibility criteria: 1) the wife had to be between the ages of 19 and 44 years; 2) the wife had to be of proven fertility as shown by having carried a fetus for at least 28 weeks; 3) the couple must have submitted one satisfactory temperature graph before being accepted; 4) the couple must have expressed a willingness to submit temperature graphs for 24 months; and 5) the couple must have expressed an interest in habitual use in practice of periodic abstinence as the form of NFP.

So as to properly classify pregnancies into planned or unplanned, we required the recording of the last sexual relation before the fertile period and the first one after the end of the fertile period.

As a further aid in classifying the pregnancies, the family planning intentions were documented initially and reviewed monthly by the use of the following questions which were printed on the registration form and repeated on each chart: "Do you plan to conceive your next child soon (within next 6 months)?" and "If yes, is it for next month?" Only the reported planned pregnancies of couples answering these questions affirmatively were classified as a planned pregnancy.

The most crucial part of any prospective study is the follow-up. A study which fails to account for all or most couples at all times and particularly by the end of the study period, may be a complete loss of effort and expense. Only 35 couples out of 1,022 (3.4%) were lost to follow-up in this study.

Study's Results

The 1,022 couples in our study contributed 21,736 cycles (20,573 months) and reported 128 unplanned pregnancies. Using the Pearl Formula, we obtain a pregnancy rate of 7.47 conceptions per 100 woman years of exposure. The Pearl Formula may be biased either by the relatively high failure rate of short-time users or by the relatively low failure rate of the long-time users. To correct for these biases, Potter (1966)¹ has recommended the use of the Life Table Method of Analysis. The life table conception rate for our study is 8.26% for the

first year and 14.3% for the entire two years of the study.

Natural family planning, more than other forms of family planning, is dependent on the motivation of the couples involved. To evaluate some aspect of this motivation we asked the couples at the onset of the study if they had reached their desired family size. There were 637 couples reporting that they wished to have more children but not at that time. On the basis of their answers, we divided our sample into those who were trying to prevent a pregnancy, having reached their desired family size, and those who were only trying to delay a desired pregnancy. Those wishing to prevent any future pregnancies had a failure rate of 4.13% while those only delaying a desired pregnancy had a failure rate of 14.83%.

When we analyzed the method failures as a separate group, we found 16 cases where the couples were following the instructions and the wife became pregnant. These 16 cases give a theoretical effectiveness of .93 pregnancies per 100 woman years of exposure using the Pearl Formula.

This study offered a unique opportunity to study the socio-psychological characteristics of a select group of marital couples who were highly motivated to regulate childbirth by means of the symptothermal method. A series of standard psychological test instruments was distributed to the American sample. There were 92 couples who returned the completed questionnaires.

The most important finding revolved around the general acceptability of the method despite the acknowledged psychological stress which periodic abstinence produces, especially for men, and the desire on the part of most couples to have sexual intercourse with greater frequency. Couples who had unplanned pregnancies or dropped out of the study also reported less satisfaction with the method and were more liberal in their sexual attitudes than those who did not have such pregnancies and who remained in the study.

Tolor's (1975)² paper contains a more complete report on the results of the psychological study.

Substudy Conducted

Another substudy has been conducted with the intent to compare menstrual cycle data from NFP users in different parts of the world and from different cultures, to see if any differences exist.

The average cycle length was 28.53 days with a standard deviation of ± 4.56 days. The individual variation (days between shortest and longest cycle) ranged from one day to 70 days. There were 380 women or 37% who had a variation of eight days or less. While the difference in cycle length between the women living in the developed vs. those living in the undeveloped countries was small (.21 days), this difference was significant when subjected to "t" test analysis. One

interesting observation that we found in the data is that women in Colombia and Canada were more alike than were the Colombian and Mauritius women.

While no method has been developed, as yet, to detect let alone predict ovulation, the use of the time of shift of BBT from the low phase to the high phase can be used to approximate the time of ovulation. When examining the day of shift data we found that there was a significant difference between France and Mauritius for length of cycle but there was no significant difference for day of temperature shift. Because of this change we find that when we compare the developed and undeveloped countries, there is no significant difference between these two groups. However, if we align Canada and Colombia against the other three countries, there is a highly significant difference.

The most recent study that we have done is to compare the menstrual cycle data of unsuccessful users with that of successful users of sympto-thermal. The difference in length of cycle varies from 2.01 days for Canada to .26 days for France with an overall average difference of 1.01 days with the unsuccessful users having the longer cycle. When we look at the day of temperature shift data, the difference becomes less striking. Here the variation is from 1.77 days for Canada to .39 days for the U.S.A. with the overall average difference being .78 days, again with the unsuccessful users having the shift occurring at a later date. When subjected to a "t" test analysis, these differences proved to be highly significant.

Readers wishing more information about the sympto-thermal method may write to: The Human Life and Natural Family Planning Foundation, 1511 K Street, N.W., Washington, D.C.

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