

Profile of the Billings Ovulation Method Acceptors and Use-effectiveness of the Method in Korea*

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Data from a survey of 200 Billings Ovulation Method acceptors in Korea were used to describe a profile of these natural family planning acceptors, and to calculate use effectiveness rates for twelve months of use among women using the method for avoiding an unplanned pregnancy. The majority of acceptors were women of proven fertility who wanted to limit their family size, and many of them (79%) had previously used a family planning method. Fifty-six percent were Catholics, and those study subjects were above middle income group by Korean annual household income estimates. The mean number of living children the NFP acceptors had was 2.3 ± 1.4 and the number of children they desired to have was 2.4 ± 1.4 . The cumulative life table rate for unplanned pregnancies at the end of 12 months of use was 7 (± 2.5 S.E.) per 100 women, and women ever attending the learning sessions as couples experienced relatively less unplanned pregnancies compared to those women attending the sessions alone.

Key Words: Natural Family Planning, Billings Ovulation Method, Use-effectiveness

INTRODUCTION

The Billings Ovulation Method (OM) of Natural Family Planning (NEP) is based on the determination of the fertile period of the cycle through self-observation by the women of a sequence of changes in the quality and quantity of cervical mucus. These signs and symptoms correlate with certain periovulatory hormonal changes (Billings et al. 1980; WHO, 1981). Each woman charts her signs and symptoms and, generally in collaboration with her partner, selects those days that are appropriate for sexual union and those when abstinence must be practiced. This and other NFP methods have been promoted by the Catholic Church and other groups as the most natural approach to child spacing.

The Korea Happy Family Movement was established to meet the needs of those who for religious, cultural

or medical reasons prefer this method of fine other methods unacceptable. This national program operates through the structure of the Catholic Church, and was begun in all 14 dioceses of Korea in May, 1975. It was preceded by individual parish programs, beginning in the early 1970s, and this Korea Happy Family Movement has spread all over the country and the Billings Ovulation Method is available practically everywhere for every couple in Korea because many Catholic hospitals and clinics throughout the nation are actively participating in teaching the method (Meng, 1986).

In-depth profiles of users and rates of method effectiveness are rarely available for individual programs, although the Ovulation Method is practiced worldwide by women in a variety of cultural settings. The objective of this study are to describe this sample of Korean Ovulation Method acceptors and to assess their use-effectiveness of the Method.

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METHOD AND MATERIALS

A sample of 200 OM acceptors which is consecutive admissions to the NFP program was collected through 4 NFP centers 4 Catholic hospitals (Kangnam St. Mary's hospital, Yoidi St. Mary's hospital, Choon Cheon Columban Clinic and Mokpo Columban hospital) in Korea from May 1, 1989 to July 31, 1989. For Natural Family Planning, definition of method acceptor/ user is still controversial. For some program, it is simply a 'registered client', but it is not for other programs. In this study, a woman who attended an introductory session and charted for at least one month was considered as acceptor. Followup information was collected by interview 8 to 12 months later for 173 cases, and from program records for the remaining few.

Data was entered into a SPSS system file. Cross-tabulations and life table techniques were used in the analysis. Inconsistencies in the data were remedied as far as possible by revision and resubmission of questionnaires, and through communication between the data analysts and the program staff.

The following terms, and others previously defined (Klaus, 1987), are used: An acceptor is the fe-

male partner of a couple accepting NFP. The family planning intention of the acceptor is the stated desire of the acceptor to either limit her family size (have no more children), space the children (prolong the inter-pregnancy interval), or achieve pregnancy by using NFP to detect the fertile period. Pregnancy type was determined at the followup interview. Women who stated that a pregnancy was baseline family planning intentions. Unplanned pregnancies are further classified as method related, when all rules were followed, or user related. User related may include informed choice (pregnancy resulting from intercourse during the recognized fertile days), teacher related (pregnancy resulting from an error in teaching), or unresolved.

RESULTS

I. Profile of NFP Acceptors at Baseline

A. Social, Economic, and Demographic Characteristics (Table 1)

The women ranged in age from 23 to 48 years, with a mean age of 32.6 years. Few (3.5%) were below age 25. 85% were between 25 and 39 years old. The mean age of their husbands was 35.6 years. The mean duration of marriage was 7.8 years.

Table 1. Profile of Korean NFP Acceptors at Baseline (N = 200)

Demographic Characteristics	Mean	Range
Age of acceptors	32.6	23, 48
Age of husbands	35.6	26, 48
Duration of marriage (in years)	7.8	1, 24
Religion	Acceptors (%)	Husbands (%)
Catholic	56	42
Other or none	28	42
Protestant	9	7
Buddhist	7	9
% Differing in Religious Affiliation	23	
Years of Schooling	Acceptors (%)	Husbands (%)
6 to 9	16	5
12	51	31
14 to 16	30	49
18 to 21	3	15
Mean \pm S.D. (in years)	13 \pm 2.7	15 \pm 3.1
Annual Income Levels	(US\$)	% couples
(Won)		
below 4 million	below 5,340	1
4 to 6 million	5,340 to 8,011	30
6 to 8 million	8,011 to 10,681	31
8 to 10 million	10,680 to 13,351	26
10 million +	13,351 +	12

Table 2. Reproductive History and Family Size Desires of Korean NFP Acceptors at Baseline

	N	Mean + S.D.
number of pregnancies	196	3.5 ± 2.7
number of living children		
all women	196	2.3 ± 1.4
spacers	44	1.7 ± 1.2
limiters	80	2.4 ± 1.5
number of children desired by age of women		
all women	200	2.4 ± 1.4
15 to 24 years	7	1.8 ± 1.6
25 to 34 years	160	2.3 ± 1.5
35 + years	33	3.1 ± 1.3

Table 3. Family Planning Behaviors of Korean NFP Acceptors

	N	%
<u>Family Planning Intentions at Baseline</u>	200	
Space		22
Limit		40
Not stated		38
<u>Behaviors</u>		
Reasons for NFP use:	200	
health		78
economic		15
religious		54
Ever Use w/Family Planning	200	79
Withdrawal		9
Barriers		47
Steroidal (oral contraceptives and injectables)		17
IUD		14
BBT/Caleandar		12
Couples discuss family size desires		95
Couples discuss intercourse		79
Couples attended some instructional visit together		44
<u>Program Contacts</u>		200
Referral source	200	
outreach worker		64
relative/friend		15
medical worker		25
religious worker		22
Number of instructional visits to autonomy	198	
10 or less		71
10 to 20		29
Mean number of moths to autonomy	198	3 months

Table 4. Pregnancy Rates for Korean OM Acceptors

	Life Table 12-month Cumulative Pregnancy Rates (per 100 women \pm standard error)*		Pearl Pregnancy Rates (per 100 woman-years)		
Unplanned Pregnancies**	7 \pm 2.5		8		
			Percentage in Group Experiencing Pregnancy	Reported Number of Unplanned Pregnancies	Percentage of Pregnancies Unplanned
Pregnancy Occurrence Among:***	Number in Group	Number of Pregnancies			
Baseline Spacers	43	6	14	3	50
Baseline Limiters	75	9	12	5	55
Baseline Intention Unknown	71	9	13	6	67
Switchers	13	2	0	0	—
Women Attending Alone	129	19	15	12	63
Women Ever Attending as a Couple	60	7	12	2	29

*All use-effectiveness rates and confidence intervals have been rounded to the nearest unit of pregnancy.

**Undesignated pregnancies are assumed planned.

***Switchers refers to those women who declared themselves either a spacer or limiter at baseline but did not state their family planning intention at followup, or stated no intention at baseline but recorded one at followup. "Spacers" includes all baseline spacers who were spacers or unknown at followup. "Limiters" includes all baseline limiters who were limiters or unknown at followup. Only the 189 women at followup with known pregnancy outcome were included in this table.

A majority of acceptors (56%) were Catholics, but a substantial proportion of both acceptors (29%) and their husbands (43%) had no religion or did not state one. A small proportion of acceptors were drawn from the Protestant and Buddhist communities (9% and 7%, respectively). Twenty-three percent of spouses differed in their religious affiliations.

The acceptors had, on average, 13 years of education. All had at least 6 years of schooling, and 81% had between 12 and 16 years of education. The husbands had a mean of 15 years of schooling, and 95% had 12 or more years.

The majority of couples (88%) had an annual income of 4 to 10 million won (US\$ 5,340 to \$ 13,351), with a median income range of 6 to 8 million won (US \$ 8,011 to \$ 10,681). Seventeen percent women had paid employment outside the home.

B. Reproductive and Family Planning Behaviors

Table 2 show reproductive parameters of the acceptors. Women had previously had a mean of 3.5 pregnancies. Virtually all (98%) had at least one pregnancy, and the majority (73%) had between 1 and 4 pregnancies. The mean number of living children was 2.3. Family planning intentions varied with family size; limiters had more living children on average (2.4) than spacers (1.7). The average number of children

staged desire was for 2.4 children. The number of children desired by younger women was smaller than by older women; women in age of 15-24 desired to have 1.8 children whereas women in age of 25-34, and 35 and over desired 2.3 and 3.1 children, respectively.

Table 3 shows that many women still did not decide their intentions (to limit or space) for using NFP (38%). Of those who did, more intended to limit their family size than to space their pregnancies (40% and 22% of all women, respectively). None reported acceptance of the method to achieve pregnancy.

Most acceptors (79%) had used at least one method of family planning before. Of those who had ever used a method, 71% had used condoms and withdrawal, while only 21% had previously used steroidal methods and an almost equal percentage (18%) had used and IUD. Twelve percent of OM acceptors had ever used BBT of Calendar rhythm method.

Many women gave several reasons for NFP use. Seventy-eight percent cited health, 54% religious, and 15% economic reasons. Most women (64%) were referred to the program by family planning outreach worker, but referrals through medical or religious workers were also common (25% and 22%, respectively). The vast majority (95%) of acceptors discuss their family size desires with their spouses, and most couples (79%) also discuss intercourse. Acceptors aver-

aged 3 months of instruction to autonomy. Most (71%) had 10 or fewer NFP instruction visits before autonomy, and 44% attended some visit as a couple.

II. Use-Effectiveness

Information on the number of months use and pregnancy type was available for 189 women. Ten of those women had planned pregnancies and were excluded from the life table calculations for unplanned pregnancies. Unplanned pregnancies gave a cumulative twelve month life table rate of 7 (± 2.5 S.E.) per 100 women-years, after the first years of use. Two of the unplanned pregnancies were method related, 11 were teaching-related and one was associated with non-adherence to abstinence during the fertile days. An additional woman who became pregnant during the study but did not report a pregnancy type was included in this life table.

Pregnancies among women who declared themselves as planning to space between children tended to be planned, while limiters and those of undeclared intention experienced higher rates of unplanned pregnancies. Women who attended the learning sessions by themselves experienced higher rates of unplanned pregnancies than those who ever attended the sessions as couples.

DISCUSSION

The study provides a profile of Korean OM acceptors as women above 25 years of age who have been married for several years and have borne children.

On average, the accepting couples have the number of children they want; the mean family size desire and then mean number of living children are approximately equal. This is consistent with their stated intentions for using NFP, since limiters outnumber spacers. However, many women were using the NFP simply to avoid pregnancies without mentioning their intentions whether it is to limit or space.

The distribution of acceptors by religion indicates that the Korean program serves both the Catholic and the general community; this program attracts women with and without a stated religion. The majority of acceptors were Catholic and religion was frequently cited as a motivation for NFP use, suggesting it is an important consideration for many acceptors. This may be due to the year-long teaching of Catholic church on human sexuality and contraceptive methods. However, this doesn't mean that contraceptive pattern of Korean Catholic women is very much

different from that of non-Catholics. In fact, the results of 1982 National Family Health Survey (KIPH, 1982) shows that there is no significant difference in family planning methods among different religion groups.

The acceptors appear to be more affluent than average for Korea. The annual average household income was about 5.5 million won in 1985 (EPB, 1987), while the median household income range for OM acceptors in this study was 6-8 million won.

Most of the Korean OM acceptors ever used other contraceptive methods, but the methods they had used were relatively less effective ones such as barrier method, BBT/Calendar and withdrawal.

Communication between spouses on matters related to family planning is common, but less than half attended any instructional visits as a couple, suggesting that the husband's participation in the family planning instructional process is limited.

The use-effectiveness rates are comparable to other NFP programs, (Liskin, 1981). As in previous studies (Klaus & Fogan, 1982), a considerable number of persons were switching contraceptive intention. A large number of acceptors chose not to state a baseline intention. This subgroup experienced the highest rate of unplanned pregnancies among the pregnancies that occurred. Although the numbers are small, this may be supportive of the practice of encouraging clients to carefully consider and declare their intended behavior to reinforce commitment.

As found in other study (Kim & Lee, 1982), husband's participation in the learning process of NFP method decreased the unplanned pregnancy rate.

For proper comparison of use-effectiveness with those of other programs, standardization of definitions of pregnancies and method acceptor/user is needed.

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