

PERIODIC ABSTINENCE IN THE PHILIPPINES:
NEW FINDINGS FROM A NATIONAL SURVEY

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PREFACE

This paper is based on findings reported in five reports prepared in connection with the 1984 Natural Family Planning survey (NFPS), which was supported under an award from the Operations Research in Asia Project, Agency for International Development Contract No. DPE-0632-00-1029, administered by the Population Council.

The NFPS was designed and implemented by a consortium of three research centers: The Demographic Research and Development Center in Manila, the Office of Population Studies in Cebu, and the Research Institute for Mindanao Culture in Cagayan de Oro. Principal investigators were Dr. Zelda C. Zablan, Fr. Francis C. Madigan, Fr. Wilhelm Flieger, and Dr. Mercedes B. Concepcion. The reports summarized here were written by Dr. Zablan, Fr. Madigan (with associates), and Ms. Josephine L. Avila.

The author of this paper was Technical Consultant to the NFPS and involved in all phases of its design and implementation.

PERIODIC ABSTINENCE IN THE PHILIPPINES
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INTRODUCTION

Periodic abstinence¹ is of particular interest to family planning program managers and policy makers in the Philippines and to the donor agencies that help support the Philippine family planning program. Their interest has developed out of the consistent finding over the years that rhythm is one of the most popular contraceptive methods in the Philippines despite the fact that it has never been strongly promoted by the government's family planning program. Though it has been listed as a program method, owing to the fact that the Philippine population is predominantly Roman Catholic, it has not received the degree of attention accorded to sterilization, pills, condoms, or the IUD. The popularity of periodic abstinence has led to growing motivation to develop strategies for increasing its use-

1. The terms "periodic abstinence," "rhythm," "natural family planning" (NFP) are all used in this paper to refer to contraceptive methods that rely on indicators of "safe" and "unsafe" days as a guide to timing sexual activity so as to minimize the risk of conception. "Periodic abstinence" more precisely conveys the range of methods covered by the study. "Rhythm" is often used to refer to calendar rhythm in particular, and "NFP" has come to connote the other, more recently developed methods of periodic abstinence. Nevertheless, these latter terms are also used here to refer to the full range of periodic abstinence methods since they are shorter and more convenient and since they were the terms used in the interview schedules and responses on which the findings reported here are based.

effectiveness. However, the development of new strategies has been hampered by a lack of detailed information about the practice of periodic abstinence in the Philippines.

Since the late 1960s, a substantial body of research findings has accumulated regarding periodic abstinence. The findings of studies completed by the end of 1983 have previously been summarized in a paper by Laing (1984). However, most of the findings cited there were based on small-scale studies involving non-representative samples of rhythm users. To determine whether these findings can be generalized to the national level and to explore further questions not addressed or fully answered by earlier research, a national survey of periodic abstinence users was designed in 1983 and conducted in March-May 1984. The present paper is a summary of the findings from that survey, which was called the Natural Family Planning Survey (NFPS).

The NFPS employed as its sampling frame the respondents from the 1983 National Demographic Survey (NDS) who said that they were using a periodic abstinence method at the time of that survey (July-October 1983). The NDS covered a scientifically selected representative national sample of ever-married women in the ages 15-49, of whom 811 reported current use of periodic abstinence. In the NFPS, 607 (75 percent) of these cases were successfully followed up and re-interviewed. The main reasons for loss to follow-up were remote place of residence (rendering follow-up too costly), change of residence, temporary absence, and refusal. While the systematic exclusion of respondents in

remote areas undoubtedly introduced an element of bias into the NFPS sample, the effect of this bias on the validity of the findings does not seem likely to have been great.

Nationally representative data from past studies had been limited by the fact that these studies were structured surveys with a broad range of topics, in which periodic abstinence played only a small part. Such studies provided primarily information on the prevalence and use-effectiveness of periodic abstinence. Most other research findings about periodic abstinence had been obtained from more intensive studies of small samples drawn from limited geographic areas. These studies provided more qualitative data about the ways in which periodic abstinence methods were perceived and used. The NFPS combined advantages of both types of studies. It employed a highly detailed, semistructured interview schedule focused exclusively on periodic abstinence. Its respondents were limited to present and recent past users of periodic abstinence, minimizing recall problems and facilitating the focus of attention on the subject matter of interest. The sample was large enough to permit national-level generalization but small enough to permit limitation of the field staff to the most skilled interviewers and to permit qualitative analysis of relatively superficial quantitative data typical of large-scale, structured surveys.

The NDS and NFPS were both conducted by a consortium of three demographic centers, the University of the Philippines Population Institute (UPPI), the Office of Population Studies at

San Carlos University (OPS), and the Research Institute for Mindanao Culture at Xavier University (RIMCU). These centers are located in the three major island groups of the Philippines: UPPI on the northern island of Luzon; OPS in the central Visayan Islands; and RIMCU on the southern island of Mindanao. Each institution administered the collection, processing, and initial analysis of data for its own island group (with the exception that the Bicol Region of Southern Luzon was covered by OPS rather than UPPI). The initial institution-specific analyses were prepared and presented in three reports (Madigan et. al., 1984; Avila, 1985; Zablan, 1985). These reports were limited primarily to presentation of qualitative results for the respective island groups. Subsequently, two national-level reports were prepared and issued, one focusing again on qualitative results but collating the information on the three island groups (Madigan, 1985), and the other presenting detailed quantitative data both for the Philippines as a whole and for each of the major island groups (Zablan, 1986).

The present paper attempts to summarize the highlights from the NFPS. The five project reports occupy some 540 pages. To keep this summary within reasonable bounds, quantitative findings (which are more easily summarized than qualitative findings) are emphasized and subnational differences (which tend not to be great) are largely disregarded. For the rich descriptive detail that is the hallmark of qualitative analysis, the reader is referred to the national-level qualitative report and the three

institution-specific reports cited above.

The summary that follows is presented under seven headings: periodic abstinence prevalence, nature of use, knowledge about periodic abstinence methods, periodic abstinence instruction, perceived advantages and disadvantages, husband's role, and use-effectiveness. A concluding section discusses the implications of the NFPS findings for the family planning program.

PERIODIC ABSTINENCE PREVALENCE

Prior to the NFPS, national surveys for three points in time (1968, 1972, and 1978) had shown rising proportions of married women of reproductive age reporting use of the rhythm method (5.5, 7, and 8.9 percent, respectively). The 1983 NDS indicated a slight decline in prevalence between 1978 and 1983, from 8.9 percent to 7.6 percent. This decline came at the time of a decline in contraceptive prevalence as a whole from 37.1 percent to 32.1 percent. The proportion of contraceptive users who reported rhythm use was the same in 1983 as in 1978 (24 percent).

The popularity of rhythm had always been high relative to that of other methods. In 1968 only withdrawal had been reported by a larger number of couples (6.2 percent vs. 5.5 percent); in 1972, pills and rhythm were the most popular methods, each being reported by seven percent of eligible couples; and in 1978, rhythm's popularity was again exceeded only by that of withdrawal (9.5 percent vs. 8.9 percent), the prevalence of pill use having declined to only 4.8 percent. In 1983, the NDS found rhythm

prevalence again in second place, this time exceeded by female sterilization (9.2 percent vs. 7.6 percent). Thus, though the method mix changed considerably during the 15-year period, rhythm remained consistently one of the two most popular methods.

In addition to updating information on trends in rhythm prevalence, the respondents interviewed in the NFPS provided new information on the specific types of method covered by the term "rhythm". Though it had been widely assumed that most couples reporting rhythm use were relying on calendar rhythm, this had not been documented in a national survey. The NFPS findings revealed that 99 percent of the rhythm use reported in the 1983 NDS referred to calendar rhythm, either alone (93 percent) or in conjunction with the mucus method (six percent). The remainder reported use of mucus method alone (three cases) or the temperature method alone (two cases).

When asked whether they had ever tried the mucus method, 8.6 percent of the NFPS respondents replied in the affirmative. About three-fourths of the ever-users of this method were still using it. The proportion of NFPS respondents reporting having ever used the temperature method was 3.2 percent. Most of these respondents were no longer using the method. This finding is consistent with the fact that most organized efforts to promote this method had been implemented in the early 1970s but terminated during the mid-1970s, primarily because of poor use-effectiveness and declining acceptance rates. Since the mucus and temperature methods have played such limited roles in the

Philippines, they receive correspondingly limited attention in this summary report. For detailed findings regarding these methods, the reader is referred to the five project reports cited above.

Couples can use periodic abstinence methods not only to limit fertility but to enhance it as well by abstaining during the days when conception is less likely and concentrating sexual activity on the days when it is most likely. One-third of the NFPS respondents reported awareness of this technique, but only 5.7 percent reported having ever tried it. None reported current use of this technique.

NATURE OF USE

The NFPS responses bore out the previous finding from a variety of small-scale studies that almost all of the calendar rhythm users in the Philippines rely on simple, fixed formulas for estimating safe and unsafe days rather than on the Ogino formula, which allows for variation in cycle length. It also supported the previous finding that a wide variety of such formulas are employed. Generally, formulas specify the first day of bleeding or (less commonly) the first day after the cessation of bleeding. The last day of the unsafe period may be specified in terms of the number of days since the first day of bleeding, the first day after bleeding, or the first unsafe day, or it may be in terms of a number of days before the next bleeding period begins. The latter specification assumes enough

regularity to permit estimation of the date on which the next period is expected to begin. For most respondents, "regularity" refers not to a constant cycle length per se but to a tendency for the first day of bleeding in one month to fall on or about the same date as in the preceding month.

Despite the tendency to rely on formulas that do not require knowledge about cycle lengths, only 13 percent of the respondents indicated that they did not know their cycle lengths. Half of the remainder (43 percent of the total sample) reported that they had regular cycles; the average cycle length reported by these respondents was 28.9 days, with a standard deviation of 2.2 days. The other half reported irregular cycles; the differences between longest and shortest cycles reported by these respondents averaged 5.5 days, with a standard deviation of 6.6. The shortest cycles ranged from 10-36 days and the longest from 22 to 72 days.

Nearly all (94 percent) of the respondents who reported cycle lengths stated that the figures they gave were based on actual count of the days in past cycles. The median observation period claimed was 12 months; 28 percent of the respondents said they had observed their cycle lengths for more than 24 months. However, the truth of many, if not most, of these claims is doubtful. Only 13 percent of the respondents said that they had kept written records of their observations, and only four percent were able to show the records to the interviewers. Furthermore, the use of simple formulas and the widespread reliance on

calendar dates as a guide to predicting the onset of the next menstrual period provide no rational basis for motivating users to keep track of cycle lengths.

One of the major shortcomings of past research on rhythm practice was that it did not provide a sufficient basis for assessing the accuracy of couples' estimation of their safe and unsafe days. The present survey permitted such analysis, since each respondent was asked about the date of onset of the last menstrual period and whether she considered the interview date to be safe or unsafe. This information, together with information on cycle length, could be used to determine whether the safe-unsafe judgement was correct in relation to the Ogino formula (where the first day of the unsafe period is estimated by subtracting 18 from the number of days in the shortest cycle and the last day is estimated by subtracting 11 from the number of days in the longest cycle). By this analysis it was found that 237 of the 363 respondents with sufficient data for this analysis were safe according to the Ogino formula. Of these respondents, 58 (24 percent) incorrectly perceived themselves to be unsafe, indicating that they were relying on a more conservative estimating procedure than the one recommended by Ogino. The remaining 126 were estimated to be safe according to the Ogino formula. Of these, 33 (26 percent) incorrectly thought they were safe. These cases were at increased risk of becoming pregnant as a result of their misperception. This finding indicates that at any point in time, about one-fourth of rhythm users who should be

abstaining are likely not to be doing so. It may seem at first glance that this incidence of error implies a reduction in the effectiveness of rhythm by about 25 percent due to this factor alone. However, the reduction in effectiveness is probably considerably less, since the error is undoubtedly focused disproportionately on those "unsafe" days near the borderline when the pregnancy risk is lowest.

Even if the Ogino formula is followed correctly, there is some risk of accidental pregnancy, and many of the respondents were aware that the calendar rhythm method is not foolproof, as indicated by the fact that many of them reported use of other methods in combination with it. It has already been noted that six percent of the calendar rhythm users also used mucus changes as an auxiliary indicator to help them refine their estimation of the safe and unsafe days. These rhythm-plus-mucus users were only a minority of the 20 percent of NFPS respondents who reported current use of one or more indicators to augment calendar calculations. Furthermore, an additional 14 percent of the respondents reported previous use, since discontinued, of such supplementary indicators. Apart from mucus characteristics, these other indicators were mostly physical symptoms associated with different parts of the menstrual cycle, such as (most prominently) "black spots" on the legs, abdominal pain, breast pain, pimples, or headache. In addition, several respondents reported sexual desire or aggressiveness, dizziness, tiredness, a "hot" feeling, nervousness or irritability as supplementary indicators.

Besides using multiple indicators of safe and unsafe days, many respondents employed other contraceptive methods in conjunction with rhythm, primarily as a back-up in case of sexual activity during the unsafe days. Nearly all respondents who reported the use of such method combinations specified withdrawal or condoms as the back-up method. Two-thirds of the NFPS respondents (67 percent) reported ever-use of such methods. Nearly half (49 percent) reported at the time of the 1983 NDS interview that they were using rhythm in combination with withdrawal (36 percent), condoms (11 percent) or some other method (2 percent) at that time. Of those still using rhythm at the time of the NFPS, however, only 37 percent reported current use of a back-up method. The apparent decline may be at least partially due to a real trend over time away from reliance on combination of methods, but it may also have been affected by the nature of the interview. In the latter case, the NFPS percentage may be more accurate, owing to the focus of the NFPS on periodic abstinence, the superior skills and training of the interviewers, and the greater use of probing to validate responses in the NFPS.

Use of the back-up methods probably contributes considerably to reducing failure rates among rhythm acceptors in the Philippines. Three-fourths of the NFPS respondents admitted to having had sex during unsafe days in the past, but 40 percent of them said they always used a back-up method at such times, and an additional 14 percent said they usually did so; nevertheless, 41 percent of those who had taken chances admitted that they had

rarely or never used back-up methods. Nearly two-thirds, (63 percent) of the NFPS respondents admitted to having had sex at least once during the unsafe portion of the last complete cycle of rhythm use, but 69 percent of these respondents claimed that they had done so only with back-up protection.

Of all NFPS respondents, 19 percent had "taken a chance" at least once during the last complete cycle of rhythm use by having unprotected sex at least once during that cycle. The reasons given for chance-taking centered primarily on lack of self-control, primarily on the part of the husband but sometimes admittedly by the wife (or both); limited time for sexual contact (for instance, when the husband is about to go away or is home only briefly from work in another place); belief that the likelihood of conception is slight (especially common among older respondents); and unavailability of condoms to use as a back-up method. Among these reasons, the ones implicating husbands tended to predominate.

KNOWLEDGE ABOUT PERIODIC ABSTINENCE METHODS

Two modern NFP methods -- the mucus and temperature methods -- were named and described to the respondents, who were asked whether they had ever heard of them. About one-third (32 percent) said they had heard of the mucus method, and slightly more (37 percent) said they had heard of the temperature method. In addition, they were asked whether they know of methods in which two or more symptoms (calendar, mucus, and/or temperature)

were combined; only 13 percent indicated awareness of such methods.

Much smaller percentages claimed to know how to use the mucus or temperature methods to detect the days when the risk of pregnancy would be highest or lowest: 17 and 14 percent, respectively for the mucus method, and 10 and 14 percent, respectively, for the temperature method. The content of their responses indicated, furthermore, that the knowledge claimed was often either vague or incorrect, particularly regarding the temperature method. Most respondents who claimed knowledge about the mucus method were aware that the risk of conception was associated with the presence of clear, slippery mucus and that low risk was associated with absence of mucus or presence of thick, yellowish mucus, but some thought just the opposite, and many gave descriptions that were ambiguous. Responses regarding the temperature method were almost all too simplistic, associating risk of conception with the temperature level rather than with the pattern over time. Whereas the time of ovulation is characterized by a rising temperature, respondents were more likely to say the time of highest risk was when the temperature was high. Similarly, the safest time of the cycle was thought by most to be characterized by a low temperature, which is not necessarily true, since low risk days at the end of the cycle may be characterized by above average temperatures and since, more importantly, the low temperature days immediately before the temperature rise are relatively risky.

The most fundamental physiological principle underlying all periodic abstinence methods is that conception is possible only for a few days around the time of ovulation. The various periodic abstinence methods differ only in the indicators used for estimating the timing of ovulation. While an understanding of the ovulation process is not an absolute condition of learning and employing a periodic abstinence method, it is almost certainly likely to enhance quality of use. To determine the extent to which users of periodic abstinence methods are aware of ovulation, NFPS respondents were asked, "Why is it that a woman is able to conceive only during a certain part of the period between two menstrual flows?" Interviewers were instructed to probe for details, especially those that might indicate awareness of ovulation. Slightly over half (53 percent) of the responses were judged to indicate awareness of ovulation. However, only 39 percent of the respondents who seemed to be aware of ovulation (21 percent of the total) responded correctly to a probe asking when ovulation occurs during the cycle. (Any answer indicating either the middle of the cycle or about two weeks before the end of the cycle was judged to be "correct.")

Another set of questions intended to elicit information on the quality of knowledge relevant to the practice of periodic abstinence inquired about the variability of pregnancy risk during the safe and unsafe days. First, respondents were asked whether they believed pregnancy could occur as a result of sex on a "safe" day. Fully 83 percent said categorically (and

incorrectly) that there was no such possibility. Those few who recognized the possibility of accidental pregnancy on "safe" days were then asked on which of these days the risk was greatest and least. Most of the respondents who attempted to answer these questions were unable to give satisfactory answers (satisfactory answers being those that designated days close to the first or last day of the cycle as safest and those close to the borderline with unsafe days as least safe).

A similar series of questions was asked about the unsafe days, starting with a question asking whether the risk of pregnancy was the same on all unsafe days. Only 25 percent replied correctly that the risk was not uniform. However, when these respondents were asked when they thought the risk was greatest and when least, a majority were unable to give satisfactory responses.

A final knowledge issue that was addressed in the NFPS was the degree of awareness that variability in cycle length among calendar rhythm users necessitates the use of different formulas for different couples. All respondents were asked, "If a woman has been practicing calendar rhythm for several years without getting pregnant and a friend asks for advice on how to use the method, should the woman simply tell her friend the formula she uses?" The great majority (87 percent) said "yes" without qualification, either unaware of or disregarding the possibility that the first woman's formula might be inappropriate for the second woman owing to differences in cycle length. This finding

supports earlier speculation based on less conclusive research evidence, that most rhythm users are unaware of the need to take account of such differences in prescribing calendar rhythm formulas for individual women.

PERIODIC ABSTINENCE INSTRUCTION

The low quality of knowledge about periodic abstinence evinced by most users indicates a need to improve the instruction they receive. The first step in this direction is to learn about the instruction they have been receiving. The NFPS questionnaire included questions on sources of instruction, exposure to broadcasts, print materials, and aids, assessment of instruction, and desire for further instruction.

All respondents were asked whether they had received instruction from each of seven categories of people. The categories, listed in order by percentage of positive responses, were as follows: periodic abstinence user (45 percent), family planning midwife (39 percent), family planning doctor (34 percent), other friend or relative (27 percent), family planning nurse (21 percent), village volunteer family planning worker (15 percent), and full-time, salaried family planning motivator (10 percent). Thus it appears that about half of the instruction received by users of periodic abstinence in the Philippines has come from friends, relatives, or neighbors, many of whom are not themselves users of periodic abstinence methods and few (if any) of whom are qualified to act as instructors. Forty-five percent

of the respondents reported that they had received formal classroom instruction. About two-thirds of the respondents had received instruction from more than one source, and about one-sixth of these respondents reported that they had received contradictory instructions from the different sources.

All respondents were also asked to indicate the most important source of instruction for their current (or, in the case of dropouts, their most recent) periodic abstinence method. Forty-one percent said a doctor, nurse or midwife, 31 percent a user or other friend or relative, and seven percent a non-medical family planning field worker. Thus, medical workers appear to be given more credit as important sources than peers or non-medical workers. Another question, asking for ratings of five categories of program workers, elicited the following ranking (from most to least preferred): doctors, nurses, midwives, salaried non-medical workers, and village volunteer workers.

When asked about the duration and frequency of instruction from the main source cited for the current (or most recent) method, two-thirds (64 percent) of the respondents said it had lasted for an hour or less, and a similar proportion (68 percent) said it had been conducted in only one session. Clearly, most NFP users had received only brief instruction.

Only five percent of the respondents reported having "learned anything about natural family planning from radio or TV broadcasts," but 28 percent reported having learned about such methods from printed materials, most prominently magazines,

followed closely by pamphlets, comic books, and other books. Newspapers were not mentioned by many. However, only 16 percent said that they had received written materials on periodic abstinence methods. Nearly half of these respondents said their materials were in English. Of the respondents who had no printed materials, 53 percent said they would like to receive such materials. When asked what language they would like the materials to be in, nearly all specified Philippine dialects rather than English.

Seven percent of the respondents reported that they had aids, mostly calendars and charts but also a few slide rules, dials, and thermometers; 43 percent said they did not have such aids but would like to.

When asked whether they wanted additional instruction on periodic abstinence, 42 percent of the respondents said they did. Over half of them (58 percent) said they would prefer such instruction to be from a doctor rather than any of the other six specified categories of instructors. Sixty-two percent of the respondents said that they know where they could obtain high-quality instruction, but only half of them (31 percent of the total) said they had sought instruction there. Thus 69 percent of respondents either did not know where they could obtain good instruction or had not been motivated enough to visit the sources they knew of.

PERCEIVED ADVANTAGES AND DISADVANTAGES

The NFPS asked one open-ended question and several structured questions about perceived advantages of periodic abstinence methods. The responses to the open-ended question confirmed what previous studies had already shown: that the chief advantages spontaneously mentioned by rhythm users were the method's lack of side effects or health risks, its convenience (in not requiring supplies and not interfering with the sex act), and its perceived level of effectiveness. The spontaneous responses contained very few references to compatibility with religious teaching or moral values, which was also consistent with previous findings, indicating that Roman Catholic doctrine has little conscious effect on the decision to practice periodic abstinence.

The structural questions with NFPS went further than in past studies in asking specifically about particular hypothesized advantages, most of which had been mentioned only rarely or not at all in response to the open-ended question. When asked whether practice of periodic abstinence contributed to improvement of the husband-wife relationship, 77 percent said it did. An even larger proportion (84 percent) replied positively to a question asking whether periodic abstinence practice had the effect of increasing self-esteem, discipline, or self-control. Seventy percent indicated that their appreciation of sexual relations had been increased. Fifty-six percent said that morality or acceptability to religion was an advantage. And 46

percent responded positively to a question asking whether periodic abstinence practice had helped them to learn about how the reproductive system works. However, the fact that none of these benefits were mentioned by more than a handful of respondents in their spontaneous responses to the open-ended question about advantages suggests that they are not of great importance in the minds of most NFP users.

To probe further the role of Roman Catholic Church teaching on the decision to practice periodic abstinence, the 589 Roman Catholic respondents were asked, "Is your religion a factor in your preference for NFP over other methods?" Twenty-six percent answered in the affirmative; the rest said "no" (73 percent) or "don't know" (one percent). They were also asked whether they knew the Church's stand on family planning; half admitted that they did not. When those who claimed to know the Church's stand were asked what it is, a majority gave either completely or partially incorrect responses. Thus the conclusion from previous research that the teaching of the Church has little direct, conscious effect on the decisions of individual couples to practice periodic abstinence received further support from the NFPS.

Regarding disadvantages, the NFPS responses to an open-ended question bore out the previous findings that the main disadvantages were difficulty abstaining throughout the unsafe period (especially on the part of the husband), difficulty calculating and keeping track of the unsafe days, and difficulty

obtaining clear and consistent information. Responses to structured questions about more specific hypothesized disadvantages or problems indicated that problems with abstaining greatly overshadowed other kinds of problems. The mean duration of abstinence was 14 days, as was the median. While this duration is longer than the eight days required by the Ogino method for women with regular cycles, it is probably not far from what the average would be if the Ogino formula were used correctly, taking account of variations in cycle length.

HUSBAND'S ROLE

Past research on the husband's role in periodic abstinence practice tended to focus on the negative aspects -- the difficulty many husbands have controlling sexual urges during the unsafe days and the resulting marital strain. The NFPS bore out the occurrence of such problems, but it also indicated that in most couples who practice periodic abstinence, the husbands usually cooperate willingly and often play an active role.

It has already been noted above that three-fourths of the respondents answered positively when asked if NFP practice contributed to marital harmony. In contrast, much smaller proportions responded affirmatively when asked if they had difficulty with husband's lack of self-control (31 percent), experienced increased marital friction resulting from abstinence (11 percent), or worried about husband's lack of fidelity as a result of the unavailability of sex at home (4 percent).

One-sixth (17 percent) of the respondents reported that the husband had been the one to take the initiative in adopting NFP the first time, as opposed to 44 percent who reported that the wife had taken the initiative and 39 percent who said the decision to adopt periodic abstinence had arisen jointly. Over one-third (36 percent) reported that their husbands had received periodic abstinence instruction jointly with them, at least part of the time, and another 10 percent stated that their husbands had been trained separately. While about 70 percent reported that they had received more training than their husbands, one in ten stated that their husbands' instruction had been greater than their own.

Between 50 and 60 percent of the respondents also reported that their husbands played an active role in the practice of periodic abstinence, mostly by helping the wife with record-keeping and counting but in some cases taking primary responsibility for this task.

The cooperativeness of the great majority of husbands is further indicated by the finding that only two percent of the 181 respondents who reported termination of periodic abstinence use between the NDS and the NFPS attributed the decision to terminate to the husband. In contrast, eight percent took responsibility themselves. Most (60 percent) reported that the decision was a joint one, and most of the rest (30 percent of the total) stated that there had been no overt decision to terminate use of the method.

USE-EFFECTIVENESS

During the NFPS, each respondent was asked about use or non-use of periodic abstinence during each of the months between the NDS and NFPS. The information thus obtained permitted analysis of monthly probabilities of continuation and failure. Approximately 2,500 couple-months of use were observed and analyzed.

Life-table analysis of continuation probabilities revealed a six-month cumulative continuation rate for all respondents of 66.5 (i.e. 66.5 users continuing at the end of six months per 100 acceptors), which implies a monthly rate of 93.4. The six-month rate was higher than the corresponding rate for rhythm acceptors (58.9) found in the 1976 National Acceptor Surveys (the most recent survey providing life-table continuation rates at the national level). However, the comparison is not valid, since the previous rates had been based on the first six months of use following acceptance, whereas the rates obtained from the NFPS were based on a random selection of durations since acceptance.

A better comparison is between the NFPS and the corresponding rates from the 1980 Community Outreach Survey (COS), in which data were collected in much the same manner. The NFPS monthly rate translates into an annual continuation rate of 44. In contrast, the COS data indicated that the annual continuation rate for rhythm users as a whole (including in combination with other methods) was 56. This difference suggests a substantial decline in the quality of rhythm use between the late 1970s and the mid-1980s, but it could also be due at least in part to

methodological differences, since the COS data referred to 30-month retrospective period, whereas the NFPS reference period covered only six months. The shorter time period in the NFPS may have reduced recall error. The NFPS rate of 44 was similar to the COS rates for pills (42) and withdrawal (43).

Comparison among subgroups with at least 100 cases reveals the following continuation differentials. There was no difference between rhythm used in combination with withdrawal. In contrast, the COS had found a much higher continuation rate for rhythm plus withdrawal (73) than for rhythm alone (53). Respondents in their late 30s and 40s had a higher six-month cumulative rate (76) than those in the ages 25-34 (62). Continuation rates were not related to educational attainment or urban/rural place of residence; however there was a regional difference, those from the Visayas having a higher rate (77) than those in either Luzon or Mindanao (each 64).

The NFPS data indicated a monthly failure rate of 3.1, meaning that for every 100 couples using periodic abstinence during a given month, three will become pregnant. This monthly rate translates into a Pearl pregnancy rate of 37 pregnancies per hundred woman-years of use. This rate is greater than the rate of 29 obtained in the 1980 COS. However it is lower than the 1980 COS rates for withdrawal (44) or condoms (60).

The failure rate was much higher among users of rhythm alone (42) than among users of rhythm plus withdrawal (31), but both subgroups had much higher failure rates than the corresponding

subgroups in the COS (33 and 17, respectively). Not surprisingly, the magnitude of the failure rate was inversely related to age and educational attainment. However, it was unrelated to place of residence. It was lowest in the Visayas (31) and Mindanao (34) and by far highest in Luzon.

The reasons for failure as perceived by the 85 respondents who reported accidental pregnancies during the interval between the NDS and NFPS were predominantly chance-taking (38 percent) and calculating error (33 percent). Thus, 71 percent of the respondents who had experienced failure indicated that their own behavior was to blame. In addition, 14 percent blamed failure of a back-up method, eight percent stated they became pregnant as a result of sex on a "safe" day, one percent blamed incorrect instructions, and five percent gave miscellaneous other reasons.

IMPLICATIONS

The NFPS was undertaken for the purpose of providing family planning program managers and policy-makers with information needed for making decisions. This report concludes, therefore, with a list of findings and implications that seem to be of particular practical significance for managers and policy makers.

1. Periodic abstinence was used by more couples than any other method except sterilization. This continuing high prevalence level reinforces the need for the family planning program to pay special attention to the various periodic abstinence methods.

2. Calendar rhythm is nearly universally practiced by couples who report use of periodic abstinence. This finding indicates a need for special attention to calendar rhythm in particular for improving users' knowledge and practice and providing adequate training for field personnel.
3. Nearly all rhythm users rely on rigid formulas, many of which are at variance with the Ogino formulation, indicating a need to educate calendar rhythm users and potential users about the importance of and procedure for taking cycle variation into account.
4. Most rhythm users do not keep written records on cycle length and are reluctant to keep even simple written records (such as marking a calendar) to help them keep track of safe and unsafe days, indicating a need to provide motivation, training, and simple aids for record keeping.
5. There is widespread reliance on unconventional and probably unreliable indicators to augment calendar calculations (e.g., "black spots" on the thighs or abdominal pain). While the use of such supplementary indicators indicates a healthy effort to improve upon simple calendar formulas, it also reveals a lack of awareness that most of the indicators used are probably unreliable. The family planning program should help rhythm users identify which indicators are likely to be reliable and which not.
6. The NFPS respondents reported a high incidence of chance-taking (unprotected sex during the unsafe days). Furthermore, difficulty of abstaining was by far the most commonly reported problem encountered by rhythm users, and chance-taking was the most frequently cited reason for accidental pregnancy. These findings point to a need to take steps either to reduce the incidence of sex on unsafe days (e.g., by shortening the abstinence period through more precise measurement of the timing of ovulation or by increasing motivation to avoid sex during the unsafe days) or to decrease the risk of pregnancy associated with sex during the unsafe days (e.g., use of back-up methods by couples whose religious convictions permit, limitation of chance-taking to early or late unsafe days, when the risks are relatively low, rather than the middle days nearest the likely ovulation day).
7. The data on both nature of use and knowledge about periodic abstinence showed a great deal of variation in users' knowledge and skill, pointing to a need to design a broad range of instruction materials and techniques appropriate for different levels of sophistication. For instance, detailed instruction in a combination of Ogino and mucus techniques may be very appropriate for a relatively well-educated,

- experienced user but serve only to confuse a beginner or person who has relied solely on a simple formula without an understanding of reproductive physiology.
8. When asked whether rhythm users should teach potential new acceptors their own formula, most clients answered in the affirmative, indicating a need to alert users to the importance of taking into account individual differences in providing periodic abstinence instructions and to enlist their support in referring potential users to properly trained instructors.
 9. A majority of NFP users were not even aware of the mucus or thermometer method, and very few reported that they knew how these methods are used. The family planning program could provide instruction in these tested indicators and encourage couples to use them in combination with calendar calculations to improve the accuracy with which safe and unsafe days are estimated.
 10. Questions on the timing of ovulation and the variation of risks in the safe days or in the unsafe days revealed widespread lack of awareness of underlying physiology or its practical implications for variation in pregnancy risk; instruction in relevant aspects of reproductive physiology would help users to understand and remember the rules and formulas for effective practice of periodic abstinence.
 11. Large proportions of users cited doctors, nurses, or midwives as sources of information about rhythm. This is surprising because of the lack of emphasis on rhythm as a program method and the minimal training in rhythm provided to medical and paramedical personnel. The low level of knowledge and use of rhythm by the NFPs respondents indicates, however, that the instruction presently being provided by such workers is deficient. As a result it appears that medical and paramedical personnel need improved training in periodic abstinence methods. The importance of improved training for such workers is intensified by the NFPs finding that they are by far the most preferred source of instruction.
 12. As expected, large proportions of users cited other rhythm users and even friends or relatives who were not rhythm users as information sources, indicating a need to increase the availability of more reliable instruction by training larger numbers of field workers (especially non-clinical workers) than are presently offering such instruction. Non-medical field workers were rarely mentioned as sources of periodic abstinence instructions, indicating that more trained workers are needed who can offer periodic abstinence outside the clinical setting.

13. Most respondents reported that they had received at most one hour of training and that their training had been conducted in one session. One hour is insufficient for conveying the complexities of any of the periodic abstinence methods. Provision for longer duration of instruction, preferably spread over several sessions, is essential for improving users' understanding and practice.
14. Nearly half of the respondents had attended classes or other group sessions. However, most respondents also indicated that they were trained in only one session and for only one hour or less. These findings indicate that many couples were not receiving the individual counselling necessary for selecting the specific periodic abstinence techniques appropriate for each couple. Instruction should include both classroom lecturing and discussion on the one hand and individual counselling on the other.
15. Though the NFPS did not ask explicitly about follow-up instruction, the evidence on number of training sessions indicates that very few couples were followed up after the initial instruction period or attended follow-up meetings to determine whether they were practicing the method correctly and whether they were having problems requiring further instruction. Follow-up instruction is essential to maximizing use-effectiveness.
16. Few of the respondents had received printed materials or aids for the practice of periodic abstinence; about half of the remainder said that they would like to have such materials. Larger quantities of printed periodic abstinence materials, and aids should be produced and distributed by the family planning program to couples in need of them.
17. Nearly half of the respondents who had printed materials reported that these materials were in English. However, almost all of the respondents who said they wanted printed materials stipulated that they wanted them to be in Philippine dialects rather than in English. The use of English in printed materials should be at least curtailed.
18. About half of the respondents who said that they knew where they could get high-quality periodic abstinence instruction (mostly at clinics) admitted that they had not sought instruction there. This is a common problem with family planning methods in general, and the usual solution is to bring the services to the villages whenever possible. In addition to training more non-medical field workers, recommended above, the program could organize teams to hold periodic abstinence seminars (for both initial training and refresher training later on) in selected villages. Field

workers could be enlisted to assist with individual counselling at the time of the seminar and conduct follow-up home visits afterwards.

19. Some respondents cited effectiveness as an advantage of periodic abstinence. This finding suggests that the program needs to emphasize the relative ineffectiveness of periodic abstinence in its communications to users and potential users so that they realize that effectiveness should not be viewed as a reason for use but rather as a risk factor that should be balanced against other types of advantages in the method-selection process.
20. Many husbands were already voluntarily and actively involved in periodic abstinence practice and could therefore be viewed as an important target group to be reached with communications designed to improve the quality of periodic abstinence knowledge and practice. Accordingly, special techniques should be developed for reaching husbands, and interpersonal communication strategies and printed materials should be developed expressly for them.
21. Use-effectiveness analysis revealed low continuation rates and high failure rates for periodic abstinence, indicating that there is much room for improvement. Couples who are dissatisfied with periodic abstinence but will not shift to "artificial" methods should receive counselling to help them find more satisfying ways of continuing periodic abstinence practice. Failure rates can probably be greatly reduced by improved instruction in techniques for estimating safe and unsafe days and by promoting practices likely to reduce the temptation to take chances.
22. The use-effectiveness analysis also indicated lower failure rates for users of rhythm in combination with withdrawal than for rhythm alone, indicating the value of using backup methods. The program should promote the use of backup methods by couples whose religious convictions permit. Though there were too few cases reporting combined use of rhythm plus condoms in the NFPS to permit general conclusions about the use-effectiveness of this combination, the limited available data support earlier findings that this combination does not improve effectiveness nearly as much as the rhythm-withdrawal combination. (This difference is probably due to the inconvenience associated with condom resupply as well as the greater popularity and effectiveness of withdrawal indicated in past surveys). Generally, promotion of backup methods in the past has been limited to condoms; the use-effectiveness findings suggest that the program would do better to promote withdrawal as the preferred backup method.

23. After chance-taking, calculation error was the main reason reported for accidental pregnancy. This finding underscores the need for clear instructions in terms of simple step-by-step procedures that can be used for calculating safe and unsafe days. Such instructions would be facilitated by the provision of simple worksheets that could serve both as a guide for the calculation procedures and as a written record to which the couple could refer so that they would not have to rely on their memories for keeping track of the safe and unsafe days.

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