

IT'S ALL IN THE TIMING: COITAL FREQUENCY AND FERTILITY AWARENESS-BASED METHODS OF FAMILY PLANNING

IRIT SINAI AND MARCOS ARÉVALO

Institute for Reproductive Health, Georgetown University, Washington, DC, USA

Summary. Fertility awareness-based methods of family planning help women to identify the days of the cycle they should avoid unprotected intercourse to prevent pregnancy. Therefore using fertility awareness-based methods influences the timing of sexual activity, which may affect the nature of the sexual relationship. Data are used from the clinical trials of two fertility awareness-based methods – the Standard Days Method and the TwoDay Method – to determine the frequency and timing of intercourse during the cycle, and the determinants of coital frequency. The mean coital frequency of study participants was similar to that reported by users of other methods. Results suggest that coital frequency increases with consecutive cycles of method use. At the same time the frequency of intercourse during the identified fertile days and during menses decreases. This evidence implies a behavioural change as couples get more experience using their method and communicating about the fertile days. Coital frequency was also influenced by the method used and by the study sites. Potential differences between the methods and sites that may contribute to this effect are discussed.

Introduction

Fertility awareness-based methods of family planning help women identify their fertile window: the days each cycle when they are most likely to become pregnant. If they wish to prevent pregnancy they avoid unprotected intercourse on these days. Users of fertility awareness-based methods may not have unprotected intercourse whenever they wish. For several consecutive days each cycle they have to avoid intercourse or use a barrier method if they are trying to prevent pregnancy. By definition, then, using a fertility awareness-based method of family planning influences the timing of sexual activity, which may affect the nature of the relationship. This may have implications for acceptability of these methods.

To determine the frequency and timing during the cycle when users of these fertility awareness-based methods have intercourse, coital logs from efficacy trials of two new simple methods of family planning – the Standard Days Method and the TwoDay Method – are examined. These methods, which use very different approaches to determine the woman's fertile window, were developed by the Institute for Reproductive Health, Georgetown University, to meet the needs of women for simple, accurate ways to identify their fertile window. Both methods are highly effective in preventing pregnancy.

The Standard Days Method

The Standard Day Method identifies the fertile window as days 8–19 of the cycle, for women with menstrual cycles that usually range between 26 and 32 days long. The same blanket rule is applied to all users in all cycles, provided that they meet the cycle regularity eligibility criteria (Arévalo *et al.*, 1999).

A clinical trial that followed 478 women in Bolivia, Peru and the Philippines, for up to thirteen cycles of Standard Days Method use, found that the method is highly effective. First year life-table pregnancy rate for correct use was 4·8. When all cycles and all pregnancies were included in the analysis (including also cycles and pregnancies occurring in cycles in which users did not follow the method rules), the pregnancy rate was 12·0 (Arévalo *et al.*, 2002). The Standard Days Method has been incorporated successfully into reproductive health and community development programmes around the world.

The TwoDay Method

The TwoDay Method uses a very different approach to identify the fertile window. Users determine whether they are fertile on any given day based on the presence or absence of cervical secretions (of any type, regardless of amount, texture, appearance or other physical characteristics). A user of the TwoDay Method asks herself each day two simple questions: (1) Did I note secretions today? and (2) Did I note secretions yesterday? If she notices secretions of any type 'today' or 'yesterday', she should consider herself fertile today and avoid unprotected intercourse to prevent pregnancy. If the woman notices no secretions today, *and* she noticed no secretions yesterday, she is very unlikely to become pregnant from intercourse today (Sinai *et al.*, 1999).

A clinical trial that followed 450 women in Guatemala, Peru and the Philippines, for up to thirteen cycles of TwoDay Method use, found that the method is highly effective. First year life-table pregnancy rate for correct use was 3·5. When all cycles and all pregnancies were included in the analysis, the pregnancy rate was 13·7 (Arévalo *et al.*, 2004).

Determinants of coital frequency

Coital frequency varies greatly by country. Demographic and Health Survey reports from around the developing world show a range of 2·6–8·9 monthly acts of

intercourse, with a mean of 5.5 for all sexually active married women, and 5.1 for users of coitus-dependent methods (Stover *et al.*, 2001).

Studies in various settings found coital frequency to be a function of age, marital status and quality and duration of the relationship; number, sex and age of children; religious affiliation, culture, race, income, education level of both partners and reproductive intentions. Among married women, age is often reported to be the most significant determinant of coital frequency: younger women have more sex than older women. The other variables appear to affect coital frequencies in some settings but not in others (Ruzicka & Bhatia, 1982; Jasso, 1985; Islam & Khan, 1993; Wang & Lin, 1994; Rao & Demaris, 1995; Agarwal *et al.*, 1999).

Studies also show that use and choice of family planning method affect coital frequency. For example, Shain *et al.* (1991) show an increase in coital frequency in the first year after tubal ligation; Wang & Lin (1994) show that the coital frequency of oral contraceptive users is significantly higher than that of users of other family planning methods, followed by sterilization users. Rhythm method users have intercourse less frequently than users of other family planning methods.

Methods

Data source

To examine coital frequency and timing of intercourse of users of fertility awareness-based methods data were combined from the two efficacy studies: the clinical trial of the Standard Days Method and the clinical trial of the TwoDay Method. The two studies were carried out with varied populations in different sites in four countries, and incorporated similar methodology and procedures.

Study participants were typical clients of public or NGO health programmes. They were between the ages of 18 and 39 at admission, in union, and willing to follow their method's guidelines to prevent pregnancy. In all sites the Institute for Reproductive Health trained health providers in method provision and study procedures. Participants in both studies completed a coital log and were interviewed monthly (Arévalo *et al.*, 2002, 2004).

The Standard Days Method and the TwoDay Method do not require abstinence on the days the methods identify as fertile. They simply help couples recognize the fertile window, so that they can choose to use a barrier method or avoid intercourse on those days. However, to facilitate the calculation of method efficacy, participants in the efficacy trials were asked to avoid intercourse altogether on the days their respective method identified as fertile. They were also asked to report if they did have intercourse during the fertile days – with or without another method as backup protection. As a result, the occurrence of intercourse during the fertile days with use of a barrier method or withdrawal as backup is probably reduced, compared with what it would have been if clients had been given free choice to abstain or use a barrier method, as occurs when the methods are offered in a regular service delivery setting.

Some 928 clients participated in the studies. Client profiles for the two trials have been described in detail elsewhere (Arévalo *et al.*, 2002, 2004). Participants resided in

urban, mixed urban/rural and rural sites. More than 90% had completed primary education and most were literate. All but five of the 928 participants had children, and about half had a child younger than two years old when admitted to the efficacy studies.

Participants contributed more than 8000 cycles to the combined dataset. Records of days with intercourse are available for the first 33 days of the cycle for Standard Days Method users, and for the first 48 days of the cycle for TwoDay Method users. Thus coital frequency information is truncated for very long cycles, and for cycles that resulted in pregnancy.

Of the 928 women who enrolled in the two studies 455 women (49%) completed thirteen cycles of method used. There were a total of 90 pregnancies (9.7% of women); some 54 women (5.8%) were lost to follow-up; some women were removed from the study for study or method-related reasons (i.e. Standard Day Method users who had a second cycle out of the 26–32 days range during the study period); yet others left the study for voluntary reasons (Arévalo *et al.*, 2002, 2004).

Statistical methods

The analysis begins with a description of coital frequency and timing for the users of each method, and continues with ordinary least square regression analysis. The dependent variable is mean coital frequency. For each study participant the number of days with intercourse in all her cycles in the study was averaged. This resulted in a continuous variable with a mean of 5.6.

Three measures of age are commonly shown in the literature to affect coital frequency: age of the woman, age of her partner and the age difference between the woman and the man (Ruzicka & Bhatia, 1982; Jasso, 1985; Islam & Khan, 1993; Wang & Lin, 1994; Rao & Demaris, 1995; Agarwal *et al.*, 1999). Since the age difference is a function of the individual ages, the three variables cannot all be included in the equation. Therefore the explanatory variables in the equation include only the age of the woman, and the age difference between the partners.

Other explanatory variables are the education of the woman and her partner, number of children and age of youngest child. All study participants were in union, but information is not available about the duration of their union or the quality of their relationship.

Assuming that couples who had previously used a barrier method may have found it easier to use a backup method if they had intercourse during the fertile days, the analysis controls for ever-use of a barrier method. Ever-use of hormonal contraceptive methods or an IUD is also controlled for, because use of these methods may get couples 'in the habit' of having intercourse whenever they please.

The method the couples used is also included. This variable controls both for the method used, and for the study in which the couple participated. A final control variable is the number of cycles the woman participated in the study.

Younger women are at the peak of their fertility. Their coital frequency is higher, and a single act of intercourse is more likely to result in conception. But does this put them at a disadvantage when using fertility awareness-based methods of family planning, such as the Standard Days Method and the TwoDay Method? Some 23%

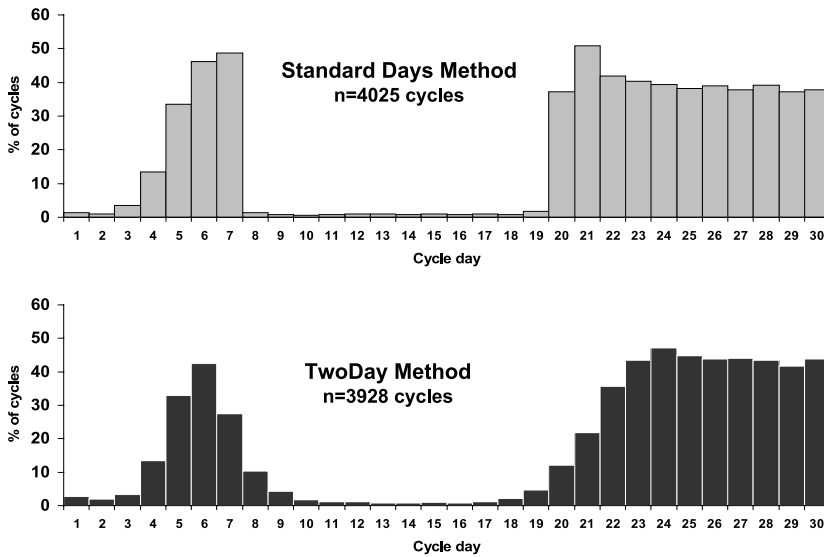


Fig. 1. Percentage of cycles with reported intercourse in the first 30 days of the cycle.

of study participants were younger than 25 years of age. They contributed too few pregnancies to the study to allow for life-table analysis of the efficacy of the methods for them. Other measures to determine if the Standard Days Method and the TwoDay Method are appropriate family planning choices for young women have to be examined. This article concludes with a descriptive analysis of the coital frequency and the timing of intercourse of young women.

Results

Coital frequency and the timing of intercourse

Coital frequency was virtually the same in the two studies: a mean of 5.5 reported days with intercourse per cycle in the Standard Days Method study, and 5.6 days in the TwoDay Method study. This is almost the same as the DHS data of 5.5 acts of intercourse per month reported for all sexually active married women in 27 countries throughout the world, and 5.1 acts of intercourse per month for users of coitus-dependent methods (Stover *et al.*, 2001).

These results suggest that users of the Standard Days Method and the TwoDay Method have as much intercourse as other sexually active married women: they simply time it differently.

Figure 1 shows the distribution of reported days with intercourse for users of the two methods in the first 30 days of the cycle. This distribution is influenced by the different algorithms that users follow when they use their method. While the Standard Days Method has a blanket rule for all users in all cycles, the beginning and length of the fertile period are variable for users of the TwoDay Method.

Users of the Standard Days Method reported unprotected intercourse on the days the method considers fertile (days 8–19) in only 3% of cycles. In an additional 4.7% of cycles they reported intercourse on the fertile days with a barrier method or withdrawal for backup. However, the intercourse in the fertile days did not occur at a constant rate. Intercourse was reported on day 8, the first day of the fertile period, in 1.4% of cycles, and on day 19, the last day of the fertile period, in 1.7% of cycles. The incidence of intercourse on the other fertile days was much lower. Evidently some couples decided to take a chance on the margins of the identified fertile period. On the other hand, the increase from 37.2% of cycles with intercourse on day 20, to 50.9% of cycles with intercourse on day 21, suggests that many couples decided to be cautious, and wait one more day after the fertile period ended before resuming intercourse.

Users of the TwoDay Method show a very similar pattern. Women reported unprotected intercourse on their identified fertile days in only 3.9% of cycles, and intercourse on these days with a backup method in 2.9% of cycles. There were no sharp cut-off days for stopping and resuming intercourse for users of the TwoDay Method because of couple-to-couple and cycle-to-cycle variations in the start, end and duration of the fertile window.

In both studies, couples who had intercourse during the days their method identified as fertile did not do so habitually. The 3.4% of cycles (from both studies) with unprotected intercourse during fertile days were contributed by 23.2% of participants. Of women who contributed at least six cycles to the studies, some 65.7% reported no intercourse at all on the fertile days in any of their cycles in the study, and only five (0.8%) had unprotected intercourse during their identified fertile days in a quarter or more of cycles.

Figure 2 shows for each cycle in the study the total percentage of cycles with reported intercourse (protected and unprotected) on the fertile days, and the percentage of cycles with reported unprotected intercourse. The incidence of intercourse on the fertile days, including unprotected intercourse, decreased the longer the woman used the method.

Figure 3 shows total number of days with intercourse in each cycle. Coital frequency increased consistently from a mean of 5.27 in the first cycle, to a mean of 5.81 in cycle 13.

While coital frequency increased, having intercourse (included unprotected intercourse) in the fertile days declined with time. This result suggests that as they use the Standard Days Method and the TwoDay Method, couples adjust their behaviour to the requirements of the methods. Over time they change the timing of intercourse, while increasing somewhat their coital frequency.

The mean length of menstrual period for cycles in the studies was 4.4 (median 4). Participants reported intercourse at least once on days with bleeding in 14.4% of cycles. Of these 14.8% (2.1% of total cycles) had intercourse on the first day of menses. It is possible that they had intercourse early in the day, and got their period later that day, or had intercourse while bleeding was still very light. Most (64.5%; 9.2% of total cycles) of the couples who had intercourse on a day with bleeding did so on the last day of their period. It is possible that bleeding stopped early in the day, and intercourse occurred that evening, or they had intercourse when bleeding

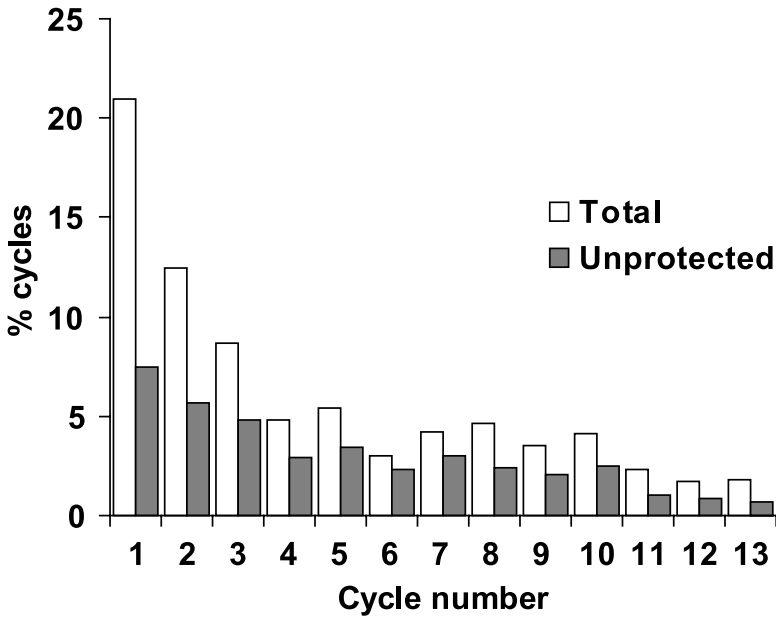


Fig. 2. Percentage of cycles with reported intercourse on the fertile days ($n=7957$).

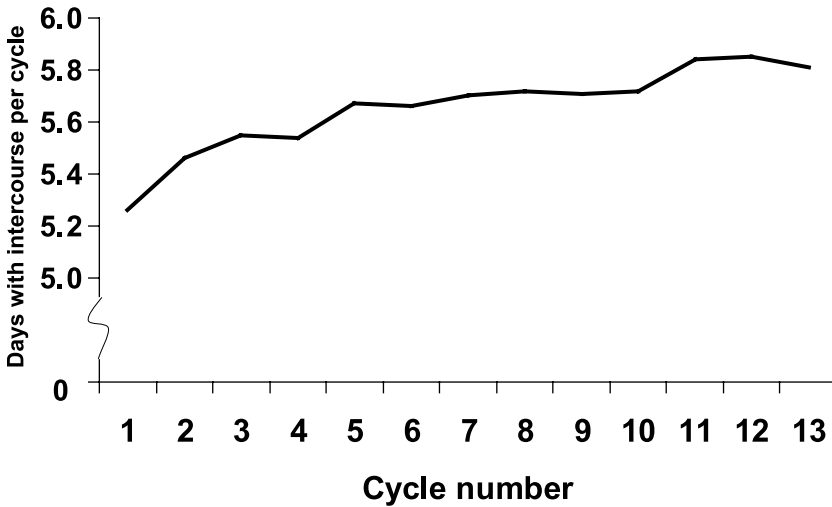


Fig. 3. Mean coital frequency ($n=7957$).

was already scant. However, in 5-8% of all cycles participants reported that they had intercourse on at least one day with bleeding that was not the first or last day of menses (it is likely that bleeding was not too light and that it lasted the whole day).

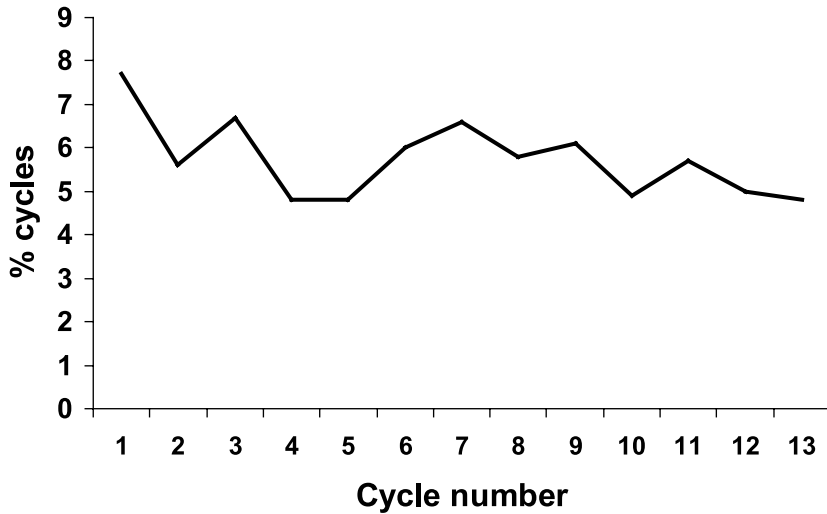


Fig. 4. Percentage of cycles with intercourse during menses (not including first or last day of menstruation) ($n=7928$).

The frequency of intercourse on intermediate (not first or last) days of bleeding also declined somewhat with continued method use (Fig. 4), as users' competence and confidence increased. This suggests that couples may have intercourse during menses early on even though they do not like it or believe it is not a good thing to do, perhaps because they are unsure of the opportunities for intercourse they would have later in the cycle.

These findings show, then, that the longer couples use the Standard Days Method and the TwoDay Method, the higher their frequency of intercourse, yet their frequency of intercourse during menses, and on the days their methods identify as fertile (with or without another backup method), declines.

Since by definition women who did not complete either study did not contribute thirteen cycles to the dataset, it is possible that the trends seen here of increased coital frequency over time with decreased frequency of intercourse during menses and on the fertile days, are unduly influenced by women who contributed more cycles to the study. Perhaps women who became pregnant or left the study for other reasons had less intercourse in the cycles they contributed to the studies, or more intercourse on their fertile days, than those who stayed in the studies longer. To test this possibility, this descriptive analysis was repeated, including only cycles contributed by the 455 women who completed thirteen cycles of method use in the studies. The results are shown in Table 1.

Women who completed thirteen cycles of use of either method show the same trends: the longer a couple used the Standard Days Method and the TwoDay Method the higher was their mean coital frequency, despite a marked decline in the frequency of intercourse on the fertile days. This suggests a behavioural change. As couples feel more comfortable and confident in their use of their fertility awareness-based method, they change the frequency and timing of intercourse. The difference in mean days with

Table 1. Frequency of intercourse by cycle in study for women who completed thirteen cycles of method use ($n=5909$ cycles)

Cycle number	Mean number of days with intercourse	Cycles with intercourse on the fertile days (%)		Cycles with intercourse during menses (excluding first and last day) (%)
		Total	Unprotected	
1	5.42	14.7	5.1	7.9
2	5.71	8.6	3.3	6.4
3	5.77	3.7	2.2	5.5
4	5.67	2.6	1.5	3.5
5	5.65	3.3	1.5	4.2
6	5.72	1.5	1.3	5.3
7	5.73	2.9	2.0	6.0
8	5.76	2.2	0.9	5.3
9	5.75	2.9	1.5	4.6
10	5.71	3.1	1.5	4.6
11	5.86	1.5	0.7	5.3
12	5.83	1.1	0.2	4.4
13	5.81	1.8	0.7	4.8
Mean for this subset	5.7	3.8	1.7	5.2
Mean for entire data	5.6	7.1	3.4	5.8

intercourse on the fertile days and on menses between this subset of women who completed thirteen cycles of method use and the entire sample reflects the lower contribution to the mean of later cycles in the study.

Multivariate analysis

Table 2 shows the results of the ordinary least square regression model of coital frequency. The value of the dependent variable for each study participant is the mean number of days with intercourse across her cycles in the study.

Of the variables that the literature suggests may influence coital frequency (and for which information is available), only age is statistically significant in the model. These findings confirm that coital frequency declines with age. The age difference between the spouses, education of the woman and her partner, parity, age of youngest child and previous use of barrier methods, hormonal methods or IUD, do not have a statistically significant effect on coital frequency.

Since coital frequency varies widely between countries and regions (Stover *et al.*, 2001), it is not surprising that the control variables for location are highly significant in the model. Participants in both Peru and the Philippines had significantly less intercourse than those in Bolivia and Guatemala. (It is not possible to distinguish between these last two countries because each was included in only one of the studies, and when all the cases in one variable (country in this case) have the same value in another variable (method) this results in statistical identification.)

Table 2. Ordinary least square regression model of coital frequency ($n=869$ women)

Variable	Coefficient	Standard error
Age of woman	-0.046**	0.016
Age difference between the woman and her partner	-0.024	0.015
Education of woman (1=completed elementary or higher)	0.005	0.270
Education of husband (1=completed elementary or higher)	-0.218	0.266
Number of children (1=3 or more)	-0.205	0.164
Age of youngest child (1=3 or more)	-0.013	0.168
Previous use of barrier method	-0.276	0.179
Previous use of hormonal method or IUD	0.232	0.178
Control variables		
Peru	-1.806**	0.284
Philippines	-1.767**	0.273
Method (1=TwoDay Method; 0=Standard Days Method)	-0.576**	0.161
Number of cycles woman contributed to study	0.035*	0.017
Constant	8.467**	
F statistics	12.656**	
R^2	0.151	

* $p<0.05$. ** $p<0.01$ (two-tailed tests).

As shown above, coital frequency increases with time in the study. Couples had intercourse more often in the later cycles of the study than at the beginning of the study. The number of cycles the women contributed to the study is therefore controlled for. This variable is also statistically significant.

The final control variable is the method the woman used. These results show that women who used the TwoDay Method had sexual intercourse less frequently than women who used the Standard Days Method.

Can younger women use fertility awareness-based methods effectively?

Women younger than 25 are at the peak of their fertility. These data confirm that they also have intercourse more frequently than older women. Study participants who were younger than 25 at admission had a mean coital frequency of 6.2 per cycle, compared with 5.4 for older women in the study. In this section their patterns of timing of intercourse are examined, to determine if the higher coital frequency put them at an increased risk for pregnancy when using the Standard Days Method and the TwoDay Method.

Only 43 (of 4035) cycles in the Standard Days Method study and 47 (of 3928) cycles in the TwoDay Method study resulted in pregnancy. These include cycles with correct method use (96.6%), and also cycles with unprotected intercourse during the fertile days. Some 30% of these pregnancies were contributed by the 23% of participants who were younger than 25 when admitted to the study. However, this difference in percentage of cycles that resulted in pregnancy between younger and older women is not statistically significant.

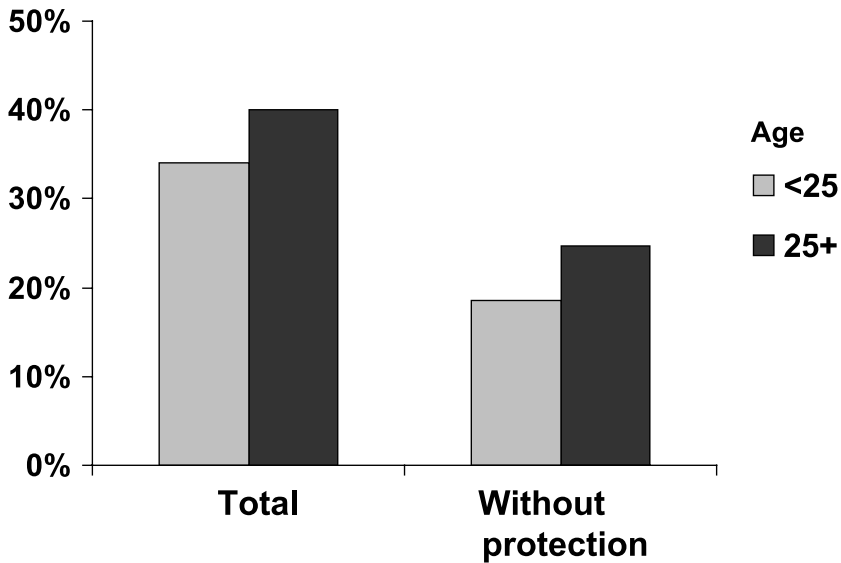


Fig. 5. Percentage of couples who had intercourse on a fertile day at least once during the study by age ($n=1819$ cycles).

Figure 5 shows the percentage of cycles contributed by younger and older women with reported intercourse during the fertile window (total and unprotected). Younger women, while having more intercourse overall, complied better with their method instructions.

The trend of increased overall frequency of intercourse in later cycles of method use is not as clear for younger study participants. Mean number of days with intercourse for women under age 25 was 5.9 in cycle 1 and 6.2 in cycle 13, but it fluctuated in the interim (minimum 5.4 in cycle 9; maximum 6.5 in cycle 5).

These results demonstrate, then, that younger women at the peak of their fertility can correctly and effectively use the Standard Days Method and the TwoDay Method.

Discussion

By definition, fertility awareness-based methods of family planning require some modification of sexual behaviour. Users may only have unprotected intercourse spontaneously on days their methods do not identify as fertile. On their fertile days they have to use a barrier method or avoid intercourse to prevent pregnancy.

This article examined how users of two simple fertility awareness-based methods, the Standard Days Method and the TwoDay Method, time their intercourse to comply with their method's instructions. Results demonstrated that users of these methods have as much intercourse as users of other methods, but they usually time it to coincide with their non-fertile days.

The descriptive analysis showed evidence of behavioural trends. When couples first learned to use the method over 20% had intercourse during their fertile days. Most

couples used backup protection on those days, but some had unprotected intercourse. The proportion of couples having intercourse during the fertile days (protected and unprotected) decreased sharply in the first three months of method use, and continued to decline. Very few couples had intercourse during their fertile days at the end of the year of method use.

A similar behavioural trend is intercourse during menses. Anecdotal information and the limited literature on intercourse during menstruation suggest that in traditional societies couples rarely have intercourse when the woman is menstruating. Either religion prohibits it, society discourages it (in some traditional societies it is taboo), or the couple does not like it, or thinks it is unclean, unpleasurable or unhealthy (Snowden & Christian, 1983; Golub, 1992; Barnhart *et al.*, 1995). These data show that some couples do have intercourse during menses, but more so in the first months of method use than later on.

Yet despite having less intercourse on their fertile days and less intercourse during menses, the overall frequency of intercourse increased over time. This result holds also when including in the analysis only those couples who survived in the studies for the entire thirteen cycle study period.

This suggests a behavioural change as the couple gets used to using the method. Most efficacy studies of fertility awareness-based family planning methods do not actually enrol women into the study until they have completed a 'learning phase', typically a three-month period during which they receive instruction in the method (World Health Organization, 1981; Gray *et al.*, 1993). Participants in the two studies, on the other hand, were enrolled in the studies from the very beginning, immediately following a 20–30 minute counselling session. But it appears that they still experienced a learning period.

During the learning period – the first few cycles of method use – couples learn to adjust to the requirements of their method. Users of the Standard Days Method get in the habit of using CycleBeads to track their cycle daily, and determining by the colour of the ring the bead is on each day if they are on their fertile day. Users of the TwoDay Method learn to identify the presence or absence of cervical secretions each day, and to use this information to determine their fertility status. This takes some practice. Focus groups conducted with some TwoDay Method users suggest that some users are not sure of their skills in the beginning, but after one or two cycles of method use they gain confidence in their ability to correctly identify their fertile days and make the connection between their observations, what they mark in their coital logs, and really understanding that they are fertile. Couples using either method learn to negotiate when they may or may not have sexual intercourse, and whether or not to use a barrier method as backup protection.

Some 55·6% of the 90 pregnancies in the two studies occurred in the first four cycles of method use; only 10% of pregnancies were in the last four cycles. This phenomenon, which is common in contraceptive trials, may be explained by two factors (Arévalo *et al.*, 2004). First, women for whom the method is biologically not as effective get pregnant early in the study. Second, learning to use the method and modify sexual behaviour is not instantaneous. Thus, the change in sexual behaviour that these results show may have a direct effect on method efficacy.

This has implications for method provision. Many women in some societies are not able to negotiate the timing of intercourse because of the expectation that men make sexual decisions, often coupled with a culture that condones domestic violence. The screening for the Standard Days Method and the TwoDay Method includes not only method eligibility, but also a self-assessment for this risk. Providers also emphasize the need for partner approval of the method before beginning to use it. However, counselling in method use must include not only instructions on the technicalities of using the method (how to identify the fertile days), but also suggestions on how to negotiate the timing of intercourse, with an emphasis on the importance of avoiding unprotected intercourse during the fertile days even during the first few cycles, while the couple is learning to use and adapt to the requirements of the method.

The multivariate analysis confirms the relationship shown in the literature between age and coital frequency. On average younger women have intercourse more frequently than older women. Therefore the timing of intercourse by younger women merits special attention. Results showed that they followed their methods' guidelines for the fertile days more closely: they more quickly adapted their sexual behaviour to their method requirement of not having unprotected intercourse during the fertile days. Thus they were able to use the methods successfully and effectively despite their higher frequency of intercourse and higher fertility.

While mean coital frequency was almost identical in the two studies, the multivariate analysis suggests that when controlling for the effect of the other variables in the model, the specific method used had a statistically significant effect on coital frequency. Users of the TwoDay Method had less intercourse than users of the Standard Days Method.

There are several possible explanations for this phenomenon. First, there is an inherent difference between the two methods that may affect coital frequency and the timing of intercourse. The Standard Days Method uses a fixed rule to identify the fertile days. All users follow the same rule – no unprotected intercourse on days 8–19 of the cycle – in all their cycles. The couple can then plan based on that. As soon as the woman gets her period the couple knows exactly when they will or will not be able to have unprotected intercourse. The TwoDay Method, on the other hand, requires more flexibility. In most cycles the fertile period started between days 6 and 11 (mean day 8), and was usually 11–15 days long (mean 13 days). Couples using the method need to be prepared for secretions to start on any day, and have no definite knowledge of when the last days of secretions will be. The couple, then, cannot plan in advance exactly when they can have unprotected intercourse. For example, some users of the Standard Days Method who worked night shifts planned their work schedule around the fertile days. This is harder to do for users of the TwoDay Method.

Second, this variable (method used) controls not only for which method the woman used, but also for which study she participated in. The Standard Days Method study took place about three years before the TwoDay Method study. Study procedures were very similar for the two studies. However, lessons learned from implementing the Standard Days Method study allowed for improvements in the materials used for the TwoDays Method study, including provider materials, provider

training materials, client materials and data collection forms. It is possible that these affected the quality of counselling in method use, which could have influenced how couples used their method.

Third, studies of coital frequencies show significant variations between countries and regions (Stover *et al.*, 2001). Both studies had sites in Peru and the Philippines, but these were not the same sites. The method variable controls also for potential differences in mean coital frequencies of the general population between sites in the same country. While such data do not exist to the authors' knowledge, the TwoDay Method study site in Peru is considered by providers to be more 'promiscuous' than the Standard Days Method study site.

A weakness of the studies is the lack of information about differences between sites that may affect the sexual behaviour of the population. Information is also lacking on other factors that the literature suggest affect coital frequencies, such as years of marriage, and the quality of the relationship between the spouses.

Another limitation of the studies was the dependence on self-reported timing of intercourse, using coital logs. The analysis depends on the accuracy of these reports. It is reassuring, however, that the mean coital frequency reported by study respondents in these studies is very similar to the level reported worldwide (Stover *et al.*, 2001). It should also be noted that these data are truncated, including only information of the first 33 days in Standard Days Method user cycles, and the first 48 days in the cycles of TwoDay Method users. Including pregnancy cycles, some 4.4% of cycles in the Standard Days Method study, and 1.2% of cycles in the TwoDay Method study were longer than these cut-off points. This means that the real mean coital frequencies of study participants may be slightly higher than reported here.

The Standard Days Method and the TwoDay Method are two new fertility awareness-based methods of family planning. They are both effective, and can address the need of women for simple, accurate instructions for identifying their fertile days. Their usefulness, however, depends in part on their acceptability to users. Since the methods affect sexual behaviour, the way couples adapt to method use can affect their satisfaction with and continued use of the methods. These results suggest that couples can adapt their timing and frequency of intercourse to the requirements of the methods.

This information was gathered in the context of efficacy studies, with frequent provider–client interaction and intensive follow-up. Study participants were instructed to avoid all intercourse on their fertile days (but report if they had intercourse on those days, with or without another method as backup). When the methods are offered through regular service delivery (not in a study settings), users are taught that they can use a barrier method or avoid intercourse on their fertile days. Further study is needed to determine whether the trends reported here hold when the methods are offered in regular service delivery.

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