

# Expanding family planning options: offering the Standard Days Method™ to women in Istanbul

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## Abstract

**Background** This study introduced the Standard Days Method™ (SDM), a fertility awareness-based method of family planning, to couples in a region of Istanbul, Turkey who were using a method of low effectiveness or no family planning method. The objective was to determine potential demand for, and satisfaction with, the SDM.

**Methods** A total of 657 couples were selected by systematic sampling and offered the SDM. Those accepting this method were interviewed 1 and 3 months after starting the SDM.

**Results** Some 47% of the participants were satisfied with the method and intended to continue using it.

**Conclusions** Potential demand for the SDM was 80.3% (278/346 eligible women) among couples who were using a method of low effectiveness or no family planning method. Our results suggest that adding the SDM to the contraceptive method mix may benefit Turkish women.

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### Key message points

- The potential demand for the Standard Days Method™ (SDM) was 80.3% of women at high risk of unintended pregnancy.
- The main reasons for discontinuation were distrust of the method and the long periods of abstinence/protected intercourse required.
- Reasons for satisfaction were having unprotected intercourse during the infertile days and fertility awareness.
- Adding the SDM to the method mix may benefit Turkish women.
- Linking the SDM to withdrawal – or promoting it as an adjunct for withdrawal – may improve acceptability among Turkish couples.

## Introduction

Fertility in Turkey has declined steadily from 4.3 children per woman of reproductive age in 1978 to 2.6 in 1998. This low total fertility rate (TFR) is related to the use of 'modern' (37.7%) and 'traditional' (25.5%) contraceptive methods.<sup>1</sup> Although 64% of Turkish couples use contraception, a high percentage use the less effective contraceptive methods such as withdrawal (24.4%).<sup>1</sup> Withdrawal has been a popular method of contraception since the 1960s and may be used in combination with other methods such as lactational amenorrhoea or vaginal douching.<sup>2</sup>

Withdrawal is preferred because it has no health risks, is readily available, does not require a visit to the health centre, costs nothing and is viewed as being a natural, 'clean' method.<sup>3,4</sup> Women see it as a way to ensure the participation of men in family planning, and men see it as a way of expressing concern for their wives' health. Its disadvantages are its effect on sexual pleasure and the difficulties some couples have practising it.<sup>3</sup> The discontinuation rate due to method failure is particularly high for withdrawal (39%) as users seek more effective methods.<sup>4</sup>

Knowledge of fertility and reproductive physiology is low in Turkey. Only 18% of all women could identify the middle of the cycle as the time they were most likely to become pregnant. Among ever-users of periodic abstinence, 54% answered this question correctly, while only 21% of ever-users of withdrawal identified the middle of the cycle as the fertile time.<sup>1</sup>

Among withdrawal users, low levels of knowledge about fertility are likely to contribute to high rates of method failure. Results of the Turkish Demographic Health Survey '98 (TDHS-1998)<sup>1</sup> document the close relationship between withdrawal use and abortion. Most abortions are preceded by contraceptive use, often a traditional contraceptive method and, primarily, withdrawal. In around one-third of all recent abortions, the user reported that the abortion followed the failure of a traditional method.<sup>5</sup>

This review on contraceptive use in Turkey suggests that family planning and contraception education programmes need to be strengthened. Increased availability of the Standard Days Method™ (SDM) would contribute to this goal.

The SDM is an effective, simple, fertility awareness-based method of family planning that is used by several thousand women in 15 countries. If a couple do not wish to become pregnant, the woman and her partner avoid unprotected intercourse on Days 8 through 19 of her cycle. A prospective, multicentre efficacy trial of this method showed a cumulative probability of pregnancy of 4.75% (95% CI 2.33–7.11) over 13 cycles of correct use of the method, and a 11.96% probability of pregnancy with typical use.<sup>6</sup> The SDM is simple: it does not involve any calculations, and it is the same every cycle; this is its advantage over the traditional rhythm method.

This article describes a study that introduced the SDM to couples in Istanbul, Turkey. The objectives of this study were to determine the potential demand, satisfaction, short-term continuation rate and reason for discontinuation of the SDM.

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## Methods

## Participants

Study participants were residents of the Umraniye region of Istanbul, a densely populated area where a large proportion of the population are first-generation migrants to the city, with relatively low incomes,<sup>7</sup> and where the use of traditional family planning methods is high (36%) (S. Cali, unpublished observations, 1993).

## Sample size

The study was carried out in a geographically defined district of Istanbul with a population of 51 386. The appropriate sample size was estimated as 638 for  $\alpha = 0.05$  and  $\beta = 0.20$  by assuming that the eligible subjects would be 30% using EPI INFO v.5. Standard error of the proportion was found as 0.03 from the equation ( $s = \gamma[p(1-p)D/n]$ ) where  $p$  was assumed to be 30% and  $D$  (design effect) was taken as 2 as described by Bennett *et al.*<sup>8</sup>

## Sampling methodology

Households were taken as the basic sampling unit and five households from each cluster were visited. Streets were considered as clusters; 131 streets were selected systematically. Selection of households was done by taking the first household as the starting point; a household whose door was nearest to the current household was taken as the consecutive household.

## Study methods

The survey was undertaken in May and June 2001. Research assistants from the Department of Public Health, Marmara University School of Medicine were trained to offer the method and conduct the interviews. Data were collected by means of a face-to-face interview.

Criteria for participating in the study were: using a traditional method of family planning, condoms inconsistently or no method; being between the ages of 18 and 39 years (the peak years of fertility and cycle regularity); being in a stable relationship; and wishing to avoid pregnancy.

Eligible women were taught basic fertility awareness concepts in their home and informed about the availability of the SDM. Criteria for method eligibility were: not having oral contraceptives in the last 3 months; not receiving an injectable contraceptive in the last 6 months; having four or more periods since the last child was born; having the last three periods approximately at the time that they were expected; and having a cycle regularity between 26 and 32 days. Eligible women were taught the SDM, provided with CycleBeads™, and invited to participate in the study. Those interested in participating signed an informed consent form. CycleBeads are a string of 32 colour-coded beads, which help users of the SDM keep track of their cycle days.<sup>6</sup> Women were advised to use a condom or avoid sexual intercourse during their fertile window and mark the first day of their menses on a calendar.

Participants were interviewed a month later to verify their understanding and correct use of the SDM. A final exit interview was administered 4 months after starting the method. During each interview, the interviewer checked that the cycle day indicated on the calendar corresponded with the position of the ring on the CycleBeads, determined whether the woman continued to use the method, and screened for possible pregnancy. Women were also asked about method satisfaction by structured interview. The responses were limited to one line. These were fully transcribed and classified according to theme.

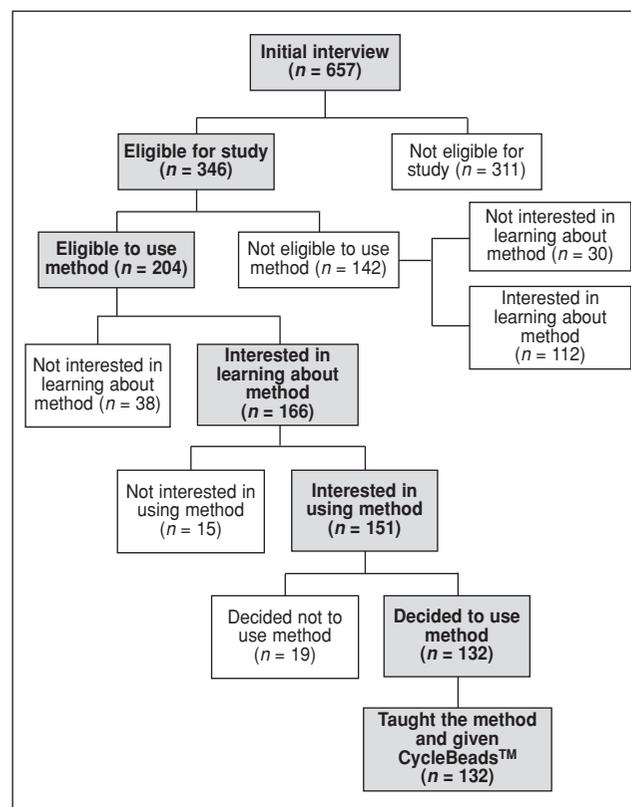


Figure 1 Stages for admission to the study

Approval for the study was obtained from the ethics committee of Marmara University School of Medicine.

## Results

## Admission to the study

Figure 1 summarises the stages of admission to the study. We began by surveying 657 women, 346 (52.7%) of whom were eligible for the study. Most non-eligible women were using a modern family planning method.

Of the 346 eligible women, 278 (80.3%) were interested in the method and 166 (59.7%) of them were found to be eligible to use the method. Most of the non-eligible women did not have cycles within the 26–32 days range. We admitted to the study 132 women who accepted the SDM and whose husbands also agreed to use the method. This figure (38%) is somewhat lower than expected, but note that 9% (61/657) of surveyed women, however, were not eligible because they had not yet had four menstrual periods since delivering their last baby. The proportion of women who actually accepted the SDM (132/657 women) was somewhat lower than expected (20.1% vs 27.5%) (Table 1).

## Participant profile

Study participants were aged 18–39 years. Mean age was 29.86 (SD 5.31) years. Most participants had completed

Table 1 Eligibility and method acceptance

Eligibility	Expected (%)	Study results (%)
Interviewed women eligible for study participation (n = 657)	50.0	52.7
Women eligible for the study who were eligible for method use and accepted the method (n = 346)	50.0	38.1
Interviewed women who accepted the method (n = 132)	27.5	20.1

**Table 2** Participant profile (n = 132)

Characteristic	%
Age (years)	
18–24	17.4
25–29	32.6
30–34	25.8
35–39	24.2
Educational level of woman <sup>a</sup>	
None (illiterate)	6.8
None (literate)	6.8
Elementary	68.2
Secondary	7.6
High school	9.8
University	0.8
Educational level of husband	
None (illiterate)	1.5
None (literate)	0.8
Elementary	70.5
Secondary	9.8
High school	15.2
University	2.3
Children (n)	
0	3.0
1	18.9
2	37.9
3	25.0
≥4	15.2
Age of youngest child (years)	
<1	9.4
1–4	60.2
5–9	21.1
10–14	9.4
Desire for more children	
Yes	15.9
No	84.1

<sup>a</sup>Duration of elementary school attendance in Turkey is 5 years, secondary school 3 years and high school 3 years.

**Table 3** Current use of contraceptive methods (n = 132)

Method	n	%
None	3	2.3
Withdrawal	101	76.5
Condom (not consistently)	17	12.9
Withdrawal and condom	10	7.5
Withdrawal and vaginal tablets	1	0.8

**Table 4** Husbands' objections to using the Standard Days Method<sup>TM</sup>

Reason	n
Husband wanted to have a baby	2
Husband did not trust the method	5
Husband wanted to use a more effective method	3
Husband wanted to continue with their previous method (withdrawal)	2
Husband was not happy with using a condom on fertile days	1
Total	13

elementary education. The mean number of children was 2.36 (SD 1.15). Only 21 women stated they would want more children in the future (Table 2).

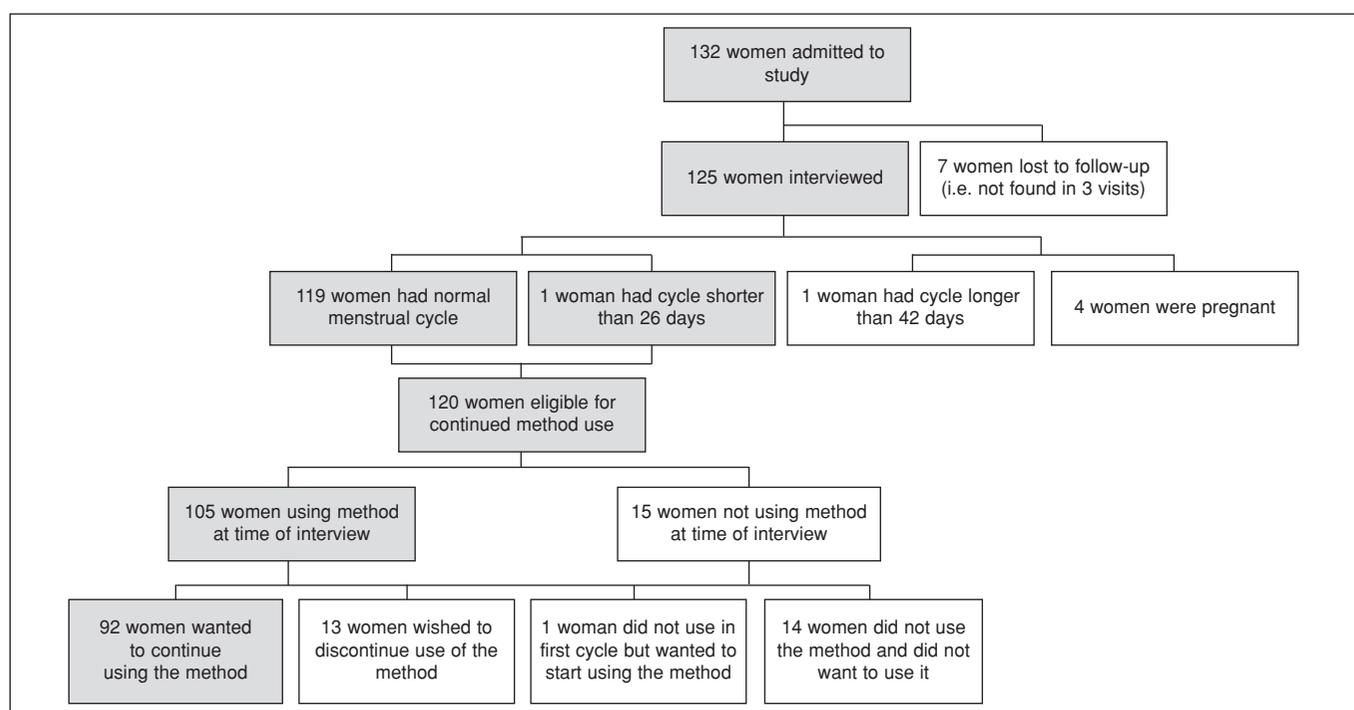
Withdrawal was the most commonly used method for both 'ever-use' and 'current-use' of contraceptives with 88.6% and 76.5%, respectively. Only three participants were not doing anything to avoid pregnancy (Table 3). Of the 28 participants who were using a barrier method at the time of the survey, 22 reported using it most of the time and six reported using it only occasionally.

**First follow-up interview**

The first follow-up interview was conducted 1 month after starting the SDM. Seven women were lost to follow-up (Figure 2) and 105 women (84.0%, 95% CI 76.0–89.0) were still using the method and four were pregnant. Most women who left the study did so because they or their partner did not like or trust the method. Most of these women went back to using withdrawal, and one went on to use another form of periodic abstinence. Three went on to use condoms consistently. Thirteen women discontinued use because their husbands were unhappy with the method (Table 4). One woman did not use the method in her first cycle but wanted to start using the SDM. In total, then, 93 women continued to be followed after the first follow-up interview (70.4%, 95% CI 62.0–78.0).

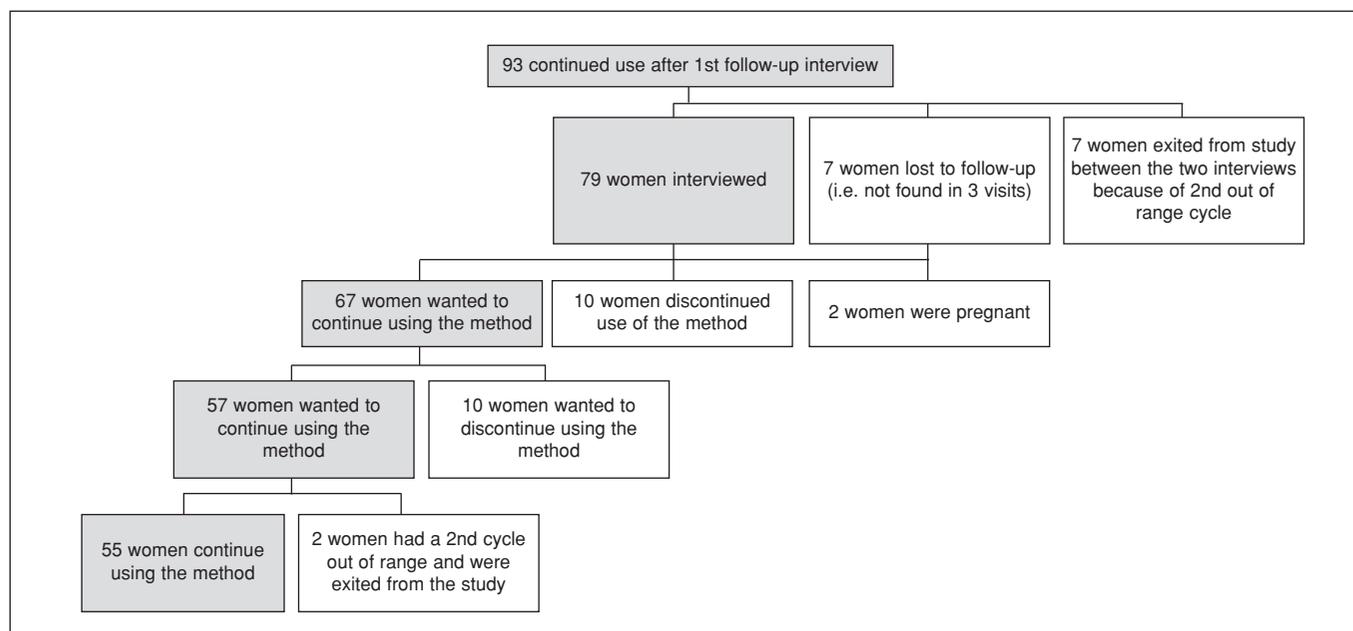
**Second follow-up interview**

The second follow-up interview took place 4 months after women started the method. Seven women had a second cycle out of the 26–32-day range before the exit interview and



**Figure 2** Results of first follow-up interview (1 month after admission to the study)

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**Figure 3** Results of the exit interview (4 months after admission to the study)

exited the study and 86 women were targeted for the second follow-up interview. Seven more women were lost to follow-up. Of the 79 women who were interviewed, 67 (84.8%, 95% CI 75.0–91.0) were still using the method. Two additional women became pregnant by the end of the fourth month (Figure 3). Ten women expressed the wish to discontinue using the method because of changed fertility preferences, distrust of the method, or irregular menstruation. Two other women were asked to exit the study because they had two cycles out of the 26–32-day range.

Most of women who had stopped using the method or who decided to discontinue were planning to use an effective contraceptive method. Six women were planning to use withdrawal. One woman did not indicate any method because she wanted to become pregnant (Table 5).

Overall, of the 132 women admitted to the study, 14 were lost to follow-up and information is available on 118 participants. Nearly half of these women were still using the method at the end of the study and were planning to continue using it. Six pregnancies occurred during the study; three of them had unprotected intercourse during Days 8–19 and two others were using withdrawal on those days. One woman of the six decided upon a termination, one miscarried, and the remainder gave birth. Results of the SDM efficacy study<sup>6</sup> suggest that most of the pregnancies occur during the first cycles of method use, and very few in later cycles. In this study, 4/6 pregnancies occurred in the

first cycle. Also, most of the participants in this study were using withdrawal or condoms inconsistently. We know that male methods are practised more often to space childbearing.<sup>4</sup> Therefore we may assume that some of these six pregnancies were actually not unexpected. Likewise, several women who decided to discontinue use of the SDM reported that their husbands wanted to have a baby.

#### Satisfaction with the SDM

The responses from the interviews were very consistent and were classified into a small number of themes. Examples of comments representative of each theme are given below.

All participants who chose to continue using the method were very satisfied with it.

About a third of women reported that they liked to be able to have unprotected intercourse during the infertile days:

*“My husband feels comfortable about himself. Before he had aches in his back or limb. Now we both have more pleasure in our sexual intercourse.”*

Women also expressed happiness in knowing when they are most likely to become pregnant and when they will get their period:

*“With this method I can calculate when I will have menstruation bleeding; this is wonderful.”*

*“I am happy because I know ... when I can get pregnant and when I will have bleeding.”*

Twelve women reported that they trusted the method:

*“I do not think about pregnancy.”*

*“It is safe; I do not worry if I got pregnant at the end of each month.”*

Users were also very happy with the fact that the method is natural and did not have side effects. They viewed it as healthy:

*“I like the method because it is natural and doesn't give any harm to my body.”*

**Table 5** Distribution of women by the method they chose to use after discontinuing the Standard Days Method™ (n = 19)

Method	n	%
Modern family planning method		
Tubal ligation	2	10.5
Intrauterine device	4	21.1
Undecided <sup>a</sup>	2	10.5
Condom consistently	4	21.1
Traditional family planning method		
Withdrawal	6	31.6
Other <sup>b</sup>	1	5.3

<sup>a</sup>Two women were debating between an intrauterine device and hormonal contraceptives.

<sup>b</sup>One woman decided to use condoms and vaginal douche.

Although most users were satisfied with the method, some did not trust it to prevent pregnancy and chose to discontinue use. Other women stated that 12 days of avoiding unprotected intercourse are too much for them. Most of the women found it easy, useful and fun to mark the first day of their period on the calendar, while a few of them complained that it was time consuming. Some women stated that their husbands were not happy with using condoms on their fertile days. Several women complained that they preferred to use withdrawal, since it feels cleaner. 'Cleanliness' as an advantage of withdrawal has been mentioned in other studies, meaning that semen does not remain in the vaginal canal.<sup>3,4</sup> It is worth noting that some women who decided to discontinue the SDM reported that their husbands were using withdrawal continuously even during the infertile periods:

*"My husband practised withdrawal for 17 years. He made it a habit. He says if he becomes accustomed to this freedom, then he would not control himself anymore."*

### Discussion

This study introduced the SDM to couples who were using a method of low efficiency or no family planning method. We chose these three groups because, at the time of this study, the results of the SDM efficacy study were not yet known. Therefore we did not want women who were already using a method of proven efficacy to participate in the study. This selection introduces some limitations, such as difficulty in generalising the finding to the whole population. Another limitation is that we provided counselling in SDM use only to women. International studies have shown that family planning and reproductive health programmes are likely to be more effective, and method continuation rates higher, when counselling is provided to both men and women.<sup>9,10</sup>

We found that the continuation rates were 84% at 1 month and 57% at 4 months and 47% of women intended to continue using the SDM after the study. Almost all the women who had discontinued or planned to discontinue at the fourth month chose a modern, effective contraceptive method. While these numbers are too small to allow for significant statistical results, they suggest that some women who use the SDM for several months view it as an introductory method and move on to other modern family planning methods. Desire for a more effective method was also reported in discontinuing withdrawal in the results of TDHS-1998.<sup>1</sup>

The results of this study show that 41% of the women who met the study eligibility criteria could not use the SDM because of cycle irregularity. Though some were postpartum or breastfeeding, a relatively high percentage had irregular cycles. This may be a characteristic of Turkish women, or it may indicate poor recording of menstrual cycles.

### Conclusions

Potential demand for the SDM was 80.3%. Almost 50.7% of women continued the method after 4 months. The findings suggest that adding the option of the SDM to the method mix may benefit Turkish women. Linking the SDM to withdrawal – or promoting it as an adjunct for withdrawal – may help the method achieve high acceptance among Turkish couples because they can avoid withdrawing during the infertile period.

Further research is required to examine the impact of counselling men on continuation rates and to study the introduction of this method in a family planning clinic setting.

### Statements on funding and competing interests

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**Competing interests.** None identified.

### References

- Hacettepe University Population Research Institute, MEASURE DHS + Macro International Inc. and UNFPA. *Turkish Demographic and Health Survey (TDHS) 1998* [in Turkish]. Ankara, Turkey: Hacettepe University, Population Research Institute, 1999.
- Bulut A, Yolsal N, Kayaturk F, Nalbant H, Molzan J, Filippi V, et al. Contraceptive methods used in Istanbul: factors associated with preference and continuing use of these methods [in Turkish]. *Nufusbil Derg* 1996; **17-18**: 3-19.
- Harmanci H, Bakirci N, Kalaca S, Ozmen O, Cali S. Determinants of withdrawal use in Turkey. Paper presented at 'Health 21: In Action', International Public Health Congress, Istanbul, Turkey, 8-12 October 2000.
- Ergocmen B, Koc I, Kurtulus E, Senlet P, Roman E. *An Analytical Insight into a Traditional Method: Withdrawal Use in Turkey. A Further Analysis of 1998 Turkish Demographic and Health Survey*. Ankara, Turkey: Hacettepe University Institute of Population Studies and Calverton, MD: DHS Macro International, 2001.
- Senlet P, Cagatay L, Ergin J, Mathis J. Bridging the gap: integrating family planning with abortion services in Turkey. *Int Fam Plann Perspect* 2001; **27**: 90-101.
- Arévalo M, Jennings V, Sinai I. Efficacy of a new method of family planning: the Standard Days Method™. *Contraception* 2002; **65**: 333-338.
- Cali S, Bakirci N, Cebeci D, Erbaydar T, Harmanci H, Kalaca S, et al. Beliefs and values of men and women about contraceptive methods. Unpublished technical report prepared for WHO-HRP. Istanbul, Turkey: Marmara University Medical Faculty, Department of Public Health, 2000.
- Bennett S, Woods T, Liyanage WM, Smith DL. A simplified general method for cluster-sample surveys of health in developing countries. *World Health Stat Q* 1991; **44**: 98-106.
- Mbizvo MT, Bassett MT. Reproductive health and AIDS prevention in Sub-Saharan Africa: the case for increased male participation. *Health Policy Plan* 1996; **11**: 84-92.
- Amatya R, Akhter H, McMahan J, Williamson N, Gates D, Ahmed Y. The effect of husband counseling on NORPLANT contraceptive acceptability in Bangladesh. *Contraception* 1994; **50**: 263-273.

