

# Factors concerning the attitudes of married women toward family planning in Aydın, Turkey: A cross-sectional study

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## ABSTRACT

**Background:** Because of unemployment and inadequate education and health services, high rate of maternal and infant mortalities, a rapidly growing population is a serious problem in Turkey. Social values and attitudes of women might be effective in using modern family planning methods. Our aim in this study was to evaluate the factors concerning the attitudes of married women toward family planning.

**Materials and Methods:** Four hundred and twenty-seven women were randomly selected among 29,874 women and included in this cross-sectional study. The study was conducted between June 2008 and September 2008, and included married women between 15 and 49 years of age, living in the provincial centre of Aydın, a city in western Turkey. The study data were obtained using a questionnaire and the Family Planning Attitude Scale.

**Results:** Of the women participating in the study, 60.4% used modern methods and 26.0% used conventional methods. These variables included, in a descending order of contribution to the model's power, having a college degree, being a primary school graduate, the longest period of rural life, use of conventional methods, discussing with one's spouse issues about family planning, and age and high perception of income level.

**Conclusions:** Reorganization of family planning services by giving priority to women living in rural areas with low income and education level and conventional contraception method use could contribute to positive attitudes toward family planning. Including their spouses to this reorganization may enhance the impact.

**Key words:** Attitude, contraceptive methods, family planning services, Turkey

## INTRODUCTION

Turkey is a country with a rapidly growing population with a rate of 12.8 per thousand<sup>[1]</sup> and has been struggling with serious problems as a result of this rapid population growth such as unemployment and inadequate education and health services, as well as reduction of maternal and infant mortalities due to numerous frequent unplanned pregnancies. Therefore, enhancing the use of effective family planning methods has been an important issue for our country that needs attention, and had become one of the priorities in government policies in the last decade.

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Turkey Population Health Survey of 2008 reported that 99.6% of the married women in the age range of 15-49 years were familiar with at least one modern family planning method, and 77.6% previously used a modern family planning method.<sup>[2]</sup> These results indicate a great gap between knowledge and use. Furthermore, at the time when Turkey Population Health Survey of 2008 was conducted, 59% of women stated that they did not want to have any other child and 14% wished to have children later;<sup>[3]</sup> nevertheless, the survey reported that only 46% used a modern contraceptive method.<sup>[2]</sup> Thus, again as revealed by national statistics, 17.7% of the births in the last 5 years were unwanted, 10.5% were a result of pregnancies which were actually planned for a subsequent period,<sup>[3]</sup> and 22% of the women had abortion.<sup>[4]</sup> Therefore, further emphasis is required to shed further light upon social problems related to the insufficient use of contraceptive methods.

Studies demonstrated that there are numerous factors affecting the use of contraceptives among women, which include demographic factors, education level, region and place of residence, socioeconomic status, religious beliefs,

gender roles, knowledge, attitudes toward contraceptive methods, the demand for extended families, side effects of the methods, the quality of information and service provided by professionals, and media influence.<sup>[5,6]</sup>

With social and cultural diversity, Turkey gathers modern and traditional lifestyles together. Family ties are still strong, and social values and attitudes are still influential in formulating wishes and aims.<sup>[7]</sup> Previous studies showed that along with a method's accessibility and feasibility, attitudes toward family planning also play a role in a woman's use of and preference for contraceptive methods.<sup>[5,8]</sup> James-Hawkins *et al.* also underlined the necessity of considering individuals' attitudes to achieve success in the attempts to reduce unplanned pregnancies.<sup>[9]</sup> Although some studies have been carried out to reveal the reasons behind the insufficient use of modern family planning methods in Turkey, our literature review showed no study about the factors that affect individuals' attitudes. Therefore, our aim in the study was to determine factors that influence women's attitudes toward family planning.

## MATERIALS AND METHODS

### Study design and participants

This study was designed as a cross-sectional study. Four hundred and twenty-seven women were randomly selected among 29,874 women and included in this cross-sectional study. The study was conducted between June 2008 and September 2008, and included married women between 15 and 49 years of age, living in the provincial center of Aydin, a city in western Turkey. The number of individuals in the sample was calculated with a confidence interval of 95% ( $\alpha = 0.05$ ;  $P = 0.50$ ) and the study population of  $n = 29,874$ , and was thus found to be 370. Considering possible case losses, the study was planned with 500 women. However, of these 500 women, 14 were infertile, 11 rejected to participate in the study, and 48 were inaccessible, so the study was completed with 427 (85.4%) women. Forty-eight women were noted as inaccessible, after their homes were visited for three times and they were not found in their homes. Inclusion criteria for the study were being married and in the age range of 15-49 years, living with one's spouse, and being literate and fertile. Exclusion criteria, on the other hand, included infertility and living separate from one's spouse.

### Data collection instruments

The study data were collected using a questionnaire developed by the researchers on the basis of the literature,<sup>[9,10]</sup> and the Family Planning Attitude Scale. The questionnaire consisted of 24 questions inquiring about the woman's age and education, age and education of their spouses,

duration of marriage in years, family type, income level, social security, health problems, number of pregnancies and live births, history of unplanned pregnancies, knowledge and use of contraceptive methods, receiving counseling, history of pregnancy while using any method and the type of failed contraceptive method, and discussing about family planning with their spouses. A pilot study was conducted with 20 women in order to enhance the questionnaire's comprehensibility and easy administration, as a result of which two questions were reorganized.

### Family planning attitude scale

This scale was developed by Örsal<sup>[11]</sup> in order to assess individuals' attitudes toward family planning. The scale consists of 34 items and is a 5-point Likert-type self-assessment scale. After completing the scale, participants were asked to rate the items, with an aim to assess their attitudes toward family planning, from 1 (strongly disagree) to 5 (strongly agree). The possible total score on the scale ranges between 34 and 170. The scale's reliability and validity were evaluated in a study with 1142 participants, and Cronbach's alpha was reported as 0.90. Its construct validity was evaluated through a confirmatory factor analysis, and it was found that the scale consisted of three sub-dimensions that influenced their attitudes toward the society (items between 1 and 15), family planning methods (items between 16 and 24), and pregnancy (items between 25 and 34). The scale evaluation involves considering that "individuals with higher scores have more positive attitudes toward family planning."<sup>[11]</sup> This scale has already been used in another study conducted in Turkey.<sup>[12]</sup> In this study, the Cronbach's alpha for the Family Planning Attitude Scale was calculated as 0.91, a value which was very close to the original scale.

### Procedure

The study was carried out by two nurses, one with an ongoing PhD and the other with a master's education in the field of obstetrics and gynecology. The women included in the sample were randomly identified from the primary healthcare records and their addresses were obtained. Following this, these women were visited in their homes, and they were informed about the study and invited to participate in it. After verbal and written permission were taken from those who agreed to participate, the questionnaire was completed by the researcher through face-to-face interview technique. Subsequently, the women were informed about how to complete the Family Planning Attitude Scale and were made to complete it through self-report. Data collection forms were completed in about 30-40 min. Finally, information and counseling about family planning were presented to the women in need, and their questions were answered. This process

continued until the necessary number of cases had been reached.

This project had been approved by Aydin Provincial Health Department in order to conduct the study in provincial and local health centers in Aydin. The study protocol was approved by the Ethical Council of the Faculty of Medicine at Adnan Menderes University. Participants were informed about the research, and their verbal and written consents were obtained. No fees were paid to the women for their participation. Yet, family planning counseling was provided to those women who were found to need it or stated that they needed it.

### Data analysis

The study data were analyzed by Statistical Package for the Social Sciences Version 11.5 (SPSS Inc., IL, Chicago, USA). The descriptive data and independent variables of the study were analyzed by descriptive statistics. Analysis of variance (ANOVA) was used in order to evaluate the effects of using any contraceptive method by the time the study was conducted, upon the total mean scores of the women obtained from the Family Planning Attitude Scale. Pearson Correlation test (two-tailed) was used to determine multicollinearity in the correlation among the independent variables of the study. Stepwise method and multiple linear regression analysis were employed to select the variables that affect women's attitudes toward family planning. The values at the level of  $P < 0.05$  were deemed to be statistically significant.

### RESULTS

About half of the women had elementary (36.5%) and secondary (14.3%) level education; while less than half of their spouses had elementary (28.8%) and secondary (14.8%) level education. The mean duration of marriage was found to be  $11.39 \pm 7.82$  years. A great majority of the women (85.2%) spent most of their lives in a city center. The study found that 10.8% of the women lived in extended families, 6.8% did not have any health insurance, and 14.8% had health problems. The women had a mean of  $2.32 \pm 1.33$  pregnancies, and  $1.69 \pm 0.87$  children were alive, while 37.6% had a history of unplanned pregnancies [Table 1].

Table 2 shows contraceptive method using behaviors, contraceptive methods that had been failed, and the distribution of modern contraceptive methods they were using at the time of the study.

Women in the study sample were evaluated according to Family Planning Attitude Scale for usage of contraceptive

**Table 1: Independent variables and results of descriptive statistics (N=427)**

Variables	Mean ( $\pm$ SD) and n (%)
Age (years)	33.52 ( $\pm$ 7.82)
Spouse's age (years)	37.63 ( $\pm$ 8.22)
Marriage duration (years)	11.39 ( $\pm$ 7.88)
Number of pregnancies	2.32 ( $\pm$ 1.33)
Number of living children	1.69 ( $\pm$ 0.87)
Woman's education	
Elementary*	156 (36.5)
Secondary	61 (14.3)
High school	121 (28.3)
College	89 (20.9)
Spouses' educational status	
Elementary*	123 (28.8)
Secondary	63 (14.8)
High school	124 (29.0)
College	117 (27.4)
Place of longest residence	
Village	25 (5.9)
District	38 (8.9)
City center	363 (85.2)
Income level	
Low	88 (20.6)
Moderate	305 (71.4)
High	34 (8.0)
Living in extended families	
Yes	46 (10.8)
No	381 (89.2)
Social insurance	
Yes	398 (93.2)
No	29 (6.8)
Having health problems	
Yes	63 (14.8)
No	364 (85.2)
Having a history of unplanned pregnancy	
Yes	155 (37.6)
No	272 (62.4)

\*13 literate women and 4 women whose spouses are literate were included in the elementary education group

method and statistically significant differences were observed for the following groups: using no methods due to desire of pregnancy, pregnant, menopausal, modern method users, and conventional method users ( $P = 0.003$ ). A Turkey's honestly significant difference (HSD) test was performed in order to determine which group was the cause of this difference, and the results indicated that this difference was due to the difference between modern method using (mean =  $131.86 \pm 13.58$ ,  $n = 258$ ) and conventional

**Table 2: Women's data concerning family planning methods (N=427)**

Variables	n (%)
Receiving counseling services about contraceptive methods	130 (30.4)
Familiarity with any contraceptive method	422 (98.8)
Familiar contraceptive method*	
Pills	414 (96.9)
Condom	413 (96.7)
Intra-uterine device (IUD)	419 (98.1)
Injections	328 (76.8)
Withdrawal	389 (91.1)
Calendar method	235 (55.0)
Tubal ligation	139 (32.5)
Vasectomy	58 (13.5)
Implant	35 (8.1)
Diaphragm	20 (4.6)
Suppository	26 (6.0)
Morning-after pill	14 (3.2)
Previously used modern contraceptive methods*	
Pills	174 (40.8)
Condom	197 (46.1)
IUD	157 (36.7)
Injection	27 (6.3)
Suppository	17 (3.9)
Previously used conventional contraceptive methods	
Withdrawal	261 (61.1)
Calendar method	34 (7.9)
Already conceived during the use of the method	148 (35.2)
Methods used at the time of conception*	
Withdrawal	111 (72.5)
Condom	24 (15.6)
Calendar method	15 (9.8)
Pills	6 (3.9)
Suppository	4 (2.6)
IUD	3 (1.9)
Lactational amenorrhea	3 (1.9)
Use of contraceptive method at the time of the research	
Users of modern methods	258 (60.4)
Users of conventional methods	111 (26.0)
Pregnant-menopausal	33 (7.7)
Using no methods due to desire for pregnancy	25 (5.9)
Women who trust modern contraceptive methods	370 (86.7)
Women who trust conventional contraceptive methods	45 (10.5)

\*Some of the women cited multiple methods. Yet, percentages are based on total sample number

method using behaviors (mean = 126.25 ± 14.16, n = 111). This finding suggests that the Family Planning Attitude Scale can distinguish between the attitudes of women using modern and conventional contraceptive methods.

In this study, stepwise method and multiple linear regression analysis were used to select the variables that affected women's attitudes toward family planning. Firstly, Pearson correlation test (two-tailed) was used to determine multicollinearity in the correlation among the independent variables of the study. Burns and Grove<sup>[13]</sup> reported that a correlation higher than 65 indicates multicollinearity. This study detected a high correlation among woman's age, spouse's age, and date of marriage, spouse's and woman's education, the number of pregnancies and children alive, unplanned pregnancies, and pregnancy while using a method. Therefore, we decided to include woman's age, education, number of pregnancies, and history of unplanned pregnancies as the variables into the multiple regression models. In this analysis, the following 12 independent variables were included in the model: woman's age, educational status, family type, the place of longest residence, income level, health insurance status, having any health problems, number of pregnancies, history of unplanned pregnancies, use of contraceptive methods while the study was conducted, receiving counseling about family planning, and discussing issues about family planning with spouse. The dependent variable of the model was the total score on the Family Planning Attitude Scale.

Error term analyses of the model showed that normality, linearity, and homoscedasticity assumptions for the data were supported. Furthermore, there was no autocorrelation among the data (Durbin — Watson = 1.501). Six cases had extreme values in this model. An examination of the data showing extreme values revealed that they did not originate from any errors, so these data were kept in the model.

Stepwise multiple regression analysis was used to identify the variables that affect women's attitudes toward family planning and revealed seven statistically significant variables that enhanced the explanatory power (descriptiveness rate) [Table 3]. These variables included, in a descending order of contribution to the model's power, having a college degree, being a primary school graduate, the longest period of rural life, use of conventional methods, discussing issues about family planning with spouse, age, and high income level. This model accounted for 38% of the variance for the attitudes toward family planning.

## DISCUSSION

This cross-sectional study was conducted with randomly selected 427 married women in order to determine the factors that affect the attitudes of married women in the age range of 15-49 years. The results demonstrated that there is a positive correlation between positive attitudes toward family planning and having a college degree, discussing

**Table 3: Factors affecting women's attitudes toward family planning (N=427)**

Factors	Regression coefficients		T	95% Confidence Interval for B		Cumulative R <sup>2</sup>
	Beta	Standard error		Lower bound	Upper bound	
Constant	123.508	2.589	47.711**	118.419	128.596	
Having a college degree†	11.848	1.475	8.030**	8.948	14.748	0.246
Being a primary school graduate†	-5.986	1.237	-4.841**	-8.417	-3.556	0.293
Rural life†	-10.898	2.312	-4.713**	-15.443	-6.353	0.328
Using conventional methods†	-4.119	1.233	-3.340**	-6.543	-1.693	0.349
Discussing family planning issues with spouses†	3.211	1.183	2.714*	0.886	5.537	0.365
Age	0.164	0.070	2.342*	0.026	0.303	0.367
High perception of income level†	4.624	2.080	2.223*	0.535	8.713	0.375

\*P &lt; 0.05; \*\*P &lt; 0.001; †Dummy coding: yes = 1; no = 0

issues about family planning with spouse, and age and high income level, while there is a negative relationship with being a primary school graduate, having a rural life, and usage of conventional methods. This study is important in that it manifests the attitudes toward family planning among women living in Turkey, a country with various traditional and cultural diversities.

Similar to the results of Turkey Population and Health Survey of 2008, this study also found that a great majority of women (50.8%) and their spouses (43.6%) were primary school graduates.<sup>[14]</sup> Other studies on the issue also reported similar results.<sup>[15,16]</sup> These results indicate that a significant part of the women in the age range of 15-49 years in Turkey are primary school graduates. The low education level among women may adversely influence their attitudes toward family planning and preference for contraceptive methods. This study detected a positive relationship between having a college degree and positive attitude toward family planning, while a negative correlation exists with being a primary school graduate. Ayaz and Efe also reported similar results.<sup>[12]</sup> When offering training and counseling services about family planning, healthcare personnel should consider that individuals with lower education levels may have more negative attitudes toward family planning.

The study found that more than one-third of the women (37.6%) had unplanned pregnancies, which occurred at a higher rate in second and subsequent pregnancies. Both national and regional studies carried out in Turkey also reported similar results.<sup>[3,16,17]</sup> These results suggest that a significant portion of women experience unplanned pregnancy, which could be attributed to their negative attitudes toward methods of family planning.

Similar to the national data for Turkey, the present study also found that more than one-fourth of the women used

conventional contraceptive methods. Moreover, the study also detected a negative relationship between attitude toward family planning and the use of conventional methods. This result is important as it indicates that women with negative attitudes toward family planning more often prefer using conventional methods.

This study found a positive relationship between discussing issues about family planning with spouse and positive attitudes toward family planning. Similarly, James-Hawkins *et al.* reported that communication with the spouse and the spouse's attitudes influence the use of contraceptive methods.<sup>[9]</sup> A study conducted on Hispanic women reported that spouses are influential in contraceptive decisions, and that they cannot use any contraceptive method unless approved by their spouses.<sup>[6]</sup> A study carried out with Somali women living in Finland found that women's opinions and attitudes concerning contraceptive use are related to their religious beliefs and marital relationships.<sup>[18]</sup> These results indicate the importance of and the need to include husbands in family planning services, together with their spouses.

The study found a negative relationship between the longest period of rural life and the use of conventional methods, which could be associated with the fact that women living in rural areas have lower educational status and that they benefit less frequently from counseling services about family planning method.

The present study has certain limitations. First, since it is a cross-sectional study, its results may change with time. Second, the questionnaire used in the study was completed by the face-to-face interview method. Therefore, it is possible that some women perceived issues about family planning as private, and responded to certain questions in a way that does not fully reflect their current status. Third, the Family Planning Attitude Scale was completed by the

women using self-report method. Thus, the results may differ from the observations of health personnel.

## CONCLUSION

The present study showed that there was a need for reorganizing family planning services and re-educate health personnel employed in these services in order to give priority to women who are under high risk in terms of negative attitudes toward family planning and to eliminate these negative attitudes. Women with low income and education level who live in rural areas and use conventional methods should be more frequently included in family planning training with their spouses, which could contribute to their positive attitudes toward family planning.

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