

# Kadınların Aile Planlaması Tutumları ve Gebeliği Önleyici Yöntemlere Yönelik Algıladıkları Engelleri Etkileyen Faktörler

## Examining The Factors Affecting Women's Family Planning Attitudes and Perceived Barriers to Contraception Methods

Canan ASLIYÜKSEK<sup>1A,B,C,D,E,F,G</sup>, Emre YANIKKEREM<sup>2A,B,D,E,F,G</sup>

<sup>1</sup>Uludağ University Health Research and Practice Hospital, Bursa, Turkey

<sup>2</sup>Manisa Celal Bayar University Faculty of Health Sciences, Manisa, Turkey

### ÖZ

**Amaç:** Bu çalışmanın amacı kadınların aile planlamasına yönelik tutumlarını ve gebeliği önleyici yöntemlere yönelik algıladıkları engelleri etkileyen faktörleri incelemektir.

**Yöntem:** Tanımlayıcı, kesitsel ve ilişki arayıcı tipte olan bu çalışma Bursa'da bir üniversite hastanesinde Ekim 2018-Ekim 2019 tarihleri arasında 382 kadın ile gerçekleştirilmiştir. Veriler tanıtıcı özellikler soru formu, Aile Planlaması Tutum Ölçeği ve Gebeliği Önleyici Yöntem Kullanımında Engeller Algısı Ölçeği ile toplanmıştır.

**Bulgular:** Aile Planlaması Tutum Ölçeği ve Gebeliği Önleyici Yöntem Kullanımında Engeller Algısı Ölçeği toplam puan ortalamaları sırasıyla 115.4±39.7 ve 78.1±41.7 olarak belirlenmiştir. Aile Planlaması Tutum Ölçeği toplam puan ortalaması 33 yaş ve altı, evli, en az lise mezunu olan, çekirdek aileye sahip, gelir düzeyi yüksek olan, şehir merkezinde yaşayan, doğum kontrol yöntemlerini bilen ve kullanan, doğum kontrol yöntemleri konusunda danışmanlık alan ve planlı gebeliği sahip olan kadınlarda istatistiksel olarak anlamlı yüksek bulunmuştur. Bu kadınlarda Gebeliği Önleyici Yöntem Kullanımında Engeller Algısı Ölçeği toplam puan ortalaması istatistiksel anlamlı olarak düşük saptanmıştır ( $p<0.05$ ).

**Sonuç:** Bu çalışmada kadınların aile planlamasına yönelik tutumu olumlu ancak istenilen düzeyde olmadığı, doğum kontrol yöntemlerine yönelik engel algılarının ise orta düzeyde olduğu belirlenmiştir. Bu nedenle doğum kontrol yöntemlerine yönelik tutumları düşük olan ve engel algısı olan kadınlara bu konuda birebir danışmanlık verilmesi önemlidir.

**Anahtar Kelimeler:** Aile planlaması, Doğum kontrol davranışı, Doğum kontrolü.

### ABSTRACT

**Objective:** The aim of this study was to examine the factors affecting women's attitudes towards family planning and their perceived barriers to contraception methods.

**Methods:** This descriptive, cross-sectional and correlational study was conducted in a university hospital in Bursa with 382 women between October 2018 and October 2019. Data were collected with Characteristics of Women Questionnaire, the Family Planning Attitude Scale and the Perception Scale of Barriers to Contraceptive Use.

**Results:** The mean total scores of the Family Planning Attitude Scale and the Perception Scale of Barriers to Contraceptive Use were determined to be 115.4±39.7 and 78.1±41.7, respectively. The mean total score of the Family Planning Attitude Scale was found to be statistically significantly high in women lower who were 33 years of age or younger, married, at least a high school graduate, had a nuclear family, had a high-income level, lived in the city center, were used birth control methods, whose husbands knew that they used a method received counseling about birth control methods, and had a planned pregnancy. The total mean score of the Perception Scale of Barriers to Contraceptive Use was determined statistically significantly lower in these women ( $p<0.05$ ).

**Conclusion:** In the study, it was found that women generally had positive attitudes toward family planning, but these attitudes were not at the desired level. Additionally, women's perception of obstacles to using birth control methods was at a medium level. Therefore, it is important to offer individual counseling to women who have low attitudes toward birth control methods and perceive obstacles in using them.

**Sorumlu Yazar:** Emre YANIKKEREM

Manisa Celal Bayar University, Faculty of Health Sciences, Manisa, Turkey  
emrenurse@hotmail.com

Geliş Tarihi: 07.03.2024 – Kabul Tarihi: 48.09.2024

\*This research was accepted in 2022 as a master's thesis of Manisa Celal Bayar University Health Sciences Institute.

Yazar Katkıları: A) Fikir/Kavram, B) Tasarım, C) Veri Toplama ve/veya İşleme, D) Analiz ve/veya Yorum, E) Literatür Taraması, F) Makale Yazımı, G) Eleştirel İnceleme

**Key words:** Family planning, Contraception behavior, Contraception.

## 1. INTRODUCTION

Family planning (FP), which aims to reduce excessive fertility, unwanted pregnancies, and consequently maternal and infant mortality, and to enable families to have children whenever they want, has an important place in primary health care services (1,2). Usage rates of modern methods in the world vary according to countries and regions, global contraceptive prevalence of any method in 2022, was estimated at 65% and of modern methods at 58.7% for married women. According to World Health Organization (WHO) data, between 2000 and 2020 the number of women using modern birth control methods increased from 663 million to 851 million, and the percentage of women aged 15-49 using any birth control method increased from 47.7% to 49.0%. Although it was stated that the rate of women using modern methods would increase to 77.5% worldwide in 2022, the global use of birth control methods by married women aged 15-49 reached 65 percent in 2023. The WHO emphasized that the proportion of women aged 15-49 who meet their FP needs with modern methods increased by 10 points globally in 2022 since 1990, stated that side effects of the methods, prejudices, obstacles in accessing the method, and cultural and religious reasons led to this slow increase (3). Since 1965, when FP practices were legalized in Turkey, the rate of using birth control methods by families has increased every year. Although this rate is still not at the desired level, it has been determined that 70% of married women (49% modern, 21% traditional methods) use any contraceptive method in Türkiye (4).

The United Nations Population Fund aims to end the unmet FP requirement, one of the Sustainable Development Goals, by 2030 (5). The concept of unmet FP needs is when women do not use any form of birth control even though they do not want another child, leading to unwanted or unplanned pregnancies and unsafe abortions. It was stated that 164 million of the 1.9 billion women aged 15-49 in 2021 had an unmet FP need (6). Unmet FP needs is one of the most important measures showing that women do not use their health needs and reproductive rights effectively and according to the WHO data, 8% of maternal deaths in the world are caused by abortion (7). Unmet FP needs in our country decreased with each passing day between 1993 and 2013, but the unmet FP needs, which was 6% in 2013, increased to 12% in 2018 (4). It was highlighted in the literature that the training and consultancy provided should specifically target young, less educated, and economically disadvantaged women (8).

It was stated in the literature, that there were numerous factors affecting women's sexual and reproductive health and perceived obstacles included limited access to services, insufficient information about birth control methods, side effects of the methods, and religious and cultural beliefs. A systematic review was conducted with 59 studies from 22 countries to identify personal, religious, cultural or structural barriers to sexual and reproductive health care for Muslim women. It was stated in the systematic review that there were multiple factors affecting the sexual and reproductive health of Muslim women, that Muslim women's sexual and reproductive health knowledge was found weak, and that there were negative attitudes that affected their access and use of these services. Additionally, the main obstacles to using contraceptives were inadequate knowledge about reproductive health and birth control methods, misunderstandings and negative attitudes, religious and cultural beliefs, opposition from husbands and family, fear of stigmatization, and being labeled as having pre-marital sexual relations among unmarried women (9). Personal, societal, and health systems-based barriers including myths and misconceptions, known side effects of contraceptives, prohibitive social norms, and negative attitude of health professionals were the

other major barriers to contraceptive use among young people in systematic reviews examining barriers to contraceptive methods (10).

Türkiye Population Health Survey stated that the use of modern methods was higher in women who graduated from university, who worked, who lived in cities, and who had a high number of pregnancies and births (4). The previous studies stated that women did not use birth control methods due to desiring to get pregnant (11,12), lack of knowledge (12,13), thinking that using methods a sin (11), and harmful to health (11,14), side effects of methods (1,11), and their partners not wanting to use birth control methods (11,13). In addition, other barriers to the use of contraception were the inability to access the method, limited method diversity, inadequacy in service quality, expectations of the society, negative effects of religion and culture, and the attitude of the individual and the family (1). It was thought that the feature that distinguishes this study from other studies was that women's FP attitudes and obstacles to birth control methods and affecting factors were examined together.

It is very important that health personnel who provide information and counseling about FP methods, take into account the socio-demographic, obstetric, and cultural characteristics of the people. Healthcare providers explaining to individuals the correct use and side effects of birth control methods and informing people about their negative attitudes towards the methods may contribute to the use of modern FP methods (13,15).

### **Aim of the Study**

The aim of this study was to examine the factors affecting women's attitudes towards FP and their perceived barriers to contraception methods.

## **2. MATERIALS AND METHODS**

### **Design and Sample of the Research**

This was a descriptive, cross-sectional and correlational study. The population of this research consisted of 49,126 women who applied to a university hospital in Türkiye in 2017. The minimum sample of the study was calculated as 382 by using the known universe formula ( $N=49.126$ ), 95% confidence interval, 5% deviation, and unknown prevalence of 50% in the EPI Info 2000 program. The sample of the study consisted of 382 women who applied to the hospital between October 2018 and October 2019. Women between the ages of 18-49 who applied to the hospital for any reason, who knew Turkish, accepted the study, were at least six weeks after their last birth, and were sexually active were included in the study. Women who underwent hysterectomy and were infertile were excluded from the study.

### **Hypotheses of the Research**

H1: There is a relationship between the some descriptive characteristics of women and the total and sub-dimension mean scores of the Family Planning Attitude Scale.

H2: There is a relationship between the some descriptive characteristics of women and the total and sub-dimension mean scores of the Perception Scale of Barriers to Contraceptive Use Scale.

H3: There is a relationship between the Family Planning Attitude Scale and the total and sub-dimension mean scores of the Perception Scale of Barriers to Contraceptive Use Scale.

## **Independent and Dependent Variables of the Research**

Some descriptive characteristics such as the woman's age, education level, marital status, family type, income level, place of residence, use of birth control, and status of receiving counseling on methods were the independent variables of the research. The total and sub-dimensions mean scores of Family Planning Attitude Scale and the Perception Scale of Barriers to Contraceptive Use Scale were the dependent variables of the study.

## **Data Collection Tools**

The data collection tools used in the research consisted of three parts.

*Characteristics of Women Questionnaire:* This questionnaire which was prepared by the researchers contained questions about women's age, education and marital status, family type, income level of the family, place of residence etc.

*Family Planning Attitude Scale (FPAS):* This scale was developed by Örsal and Kubilay in a five-point Likert type (strongly agree 1, agree 2, undecided 3, disagree 4, completely disagree 5 points) consisting of 34 items, and the Cronbach alpha value of the scale was found to be 0.90. In this study, the Cronbach alpha value of the FPAS was 0.97. A minimum of 34 and a maximum of 170 points are obtained from this scale. This scale has three sub-dimensions as follows: "attitudes of society towards FP", "attitudes towards FP methods" and "attitudes towards birth" A high score on the scale indicates a positive attitude towards family planning (16).

*Perception Scale of Barriers to Contraceptive Use (PSBCU):* This scale, developed by Şen, Çetinkaya and Çavuşlar, consists of 31 items. This five-point Likert scale is scored from "strongly agree (5)" to "strongly disagree (1)". The lowest score that can be obtained from the scale is 31, and the highest score is 155. The high score obtained from the scale indicates that the perceived barriers to the use of contraceptive methods are high. The first 11 items of the scale evaluate barriers related to the "emotional domain", the next 11 items evaluate the barriers related to the "social domain" and 9 items evaluate the barriers related to the "cognitive domain". The Cronbach alpha value of this scale was found to be 0.95. In the present study, the Cronbach alpha value of the PSBCU was 0.98 (17).

## **Data Collection Method**

The women who applied to a university hospital in Türkiye were told about the importance and purpose of the research, and that their personal information would not be disclosed or shared anywhere. After written informed consent was obtained from the participants who accepted the study and met the inclusion criteria, the data were collected from the participants by face-to-face interview technique. After the data collection phase, brief information was given about the subjects that women were curious about and misunderstood about birth control methods.

## **Analysis of the Data**

The data in the study were evaluated using the SPSS 20.0 program. In the study, the characteristics of women, their awareness and use of birth control methods were evaluated with descriptive analysis using mean, number and percentage. The homogeneous distribution of the data was evaluated with the Kolmogorov Smirnov test. Since the data did not show homogeneous distribution, the relationship between independent and dependent variables was examined with Mann

Whitney U and Kruskal Wallis tests. The relationship between the FPAS and the PSBCU was analyzed by Spearman correlation test. In the study, statistical significance was accepted as  $p < 0.05$ .

### 3. RESULTS

#### Descriptive Characteristics of Women

In the study, the mean age of women was found as  $32.7 \pm 8.4$  and 50.5% were 33 years old and under. Overall, 67% of women were married, 68.3% were high school graduates or above, 75.9% had a nuclear family, 53.4% lived in the district and 43.2% stated that their last pregnancy was planned (Table 1).

The mean total scores of FPAS and PSBCU were found to be  $115.4 \pm 39.7$  and  $78.1 \pm 41.7$ , respectively (Table 1).

**Table 1.** Descriptive Characteristic of Women

<b>Descriptive characteristic of women</b>	<b>n (%)</b>
<b>Age groups</b>	
≤33	193 (50.5)
>34	189 (49.5)
<b>Marital status</b>	
Married	256 (67.0)
Single	93 (24.3)
Divorced	33 (8.7)
<b>Education status</b>	
Literate	17 (4.5)
Primary education	104 (27.2)
High school and above	261 (68.3)
<b>Family type</b>	
Nuclear	290 (75.9)
Extended	92 (24.1)
<b>Income status</b>	
Medium	210 (55.0)
High	56 (14.7)
Low	116 (30.3)
<b>Place of residence</b>	
City	122 (31.9)
District	204 (53.4)
Village	56 (14.7)
<b>Have you used any birth control method in the last month?</b>	
Yes	137 (35.9)
No	245 (64.1)
<b>Does your partner know that you use birth control?</b>	
Yes	124 (32.5)
No	13 (3.4)
Not using method	245 (64.1)
<b>Have you received counseling about birth control methods?</b>	
Yes	139 (36.4)
No	243 (63.6)
<b>Is the gender of the person receiving counseling important?</b>	
Yes	140 (36.6)
No	242 (63.4)
<b>Was your last pregnancy planned? (n=259)</b>	
Yes	112 (43.2)
No	147 (56.8)
<b>Total</b>	<b>382(100.0)</b>

## **The Relationship between Characteristics of Women and the Family Planning Attitude Scale**

In the study, the mean FPAS total score of women aged 33 and under was found to be statistically significantly higher than that of women aged 34 and over ( $p=0.007$ ). The mean FPAS total score was determined to be statistically significantly higher in married women than in single women and in divorced ( $p=0.005$ ) (Table 2).

The mean FPAS total score was found as  $119.5\pm 39.3$  for women living in a nuclear family and  $102.5\pm 38.5$  for women living in an extended family, and there was a statistically significant difference between the two groups ( $p=0.000$ ). The total mean score was determined to be statistically significantly higher in women who had high income compared to women whose income was medium and whose income was low ( $p=0.000$ ). The mean total score of FPAS was determined as  $132.3\pm 40.6$ ,  $112.9\pm 34.1$  and  $87.7\pm 39.9$  for women living in city, district and village, respectively ( $p=0.000$ ) (Table 2).

Attitudes of society towards FP ( $p=0.001$ ) and attitudes towards childbirth sub-dimension mean score were statistically significantly higher in women aged 33 and under than in those aged 34 and over ( $p=0.021$ ). The mean scores of all sub-dimensions of FPAS were found to be statistically significantly higher in women who were married, had a high school education or higher, had a nuclear family, had an income was high, and lived in the province compared to other groups (Table 2).

The FPAS total and subscale mean scores in women who used a birth control method in the last month were higher than in women who did not use any method, and a statistically significant difference was found ( $p=0.000$ ). The FPAS total and subscale mean scores were determined to be statistically significantly higher in women who stated that their husbands knew they used a birth control method and in women who received counseling about the methods than the other groups ( $p=0.000$ ). The FPAS total and sub-dimensions mean scores of the participants who thought that the gender of the people they received counseling about birth control methods was important were found to be statistically significantly higher than those who thought it was not important ( $p=0.000$ ). The mean score of FPAS total and sub-dimensions was statistically significantly higher in women whose last pregnancy was planned than in women whose last pregnancy was unplanned (Table 3).

## **The Relationship between Characteristics of Women and the Perception Scale of Barriers to Contraceptive Use**

In the study, it was found that women over the age of 34 and who were divorced had higher total and sub-dimension mean scores of PSECU compared to women in the other group ( $p=0.000$ ). The total mean score of PSBCU was  $82.8\pm 34.4$  for literate women,  $85.7\pm 39.0$  for primary school graduates, and  $74.8\pm 42.9$  for women with high school education and above ( $p=0.019$ ). The lowest mean score of the emotional domain subscale was determined in the group graduating from high school or above, and the mean score was  $30.0\pm 16.2$  ( $p=0.003$ ). The mean PSBCU total and all sub-dimensions score were higher in women who had a nuclear family type than in women living in extended families ( $p=0.000$ ).

In the study, the total and all sub-dimensions mean score of PSBCU was found to be highest in women whose income was low ( $p=0.000$ ). The mean score of PSBCU total and sub-dimensions were determined to be statistically significantly higher in women living in villages ( $p=0.000$ ) (Table 4).

The total and emotional, social, and cognitive domain mean scores of PSBCU were found to be statistically significantly higher in women whose last pregnancy was unplanned, in women who did not use any birth control method in the last month, women who did not receive counseling about birth control methods and in women who stated that the gender of the person they received counseling was important ( $p=0.000$ ). The PSBCU total mean score was found to be statistically significantly lower in women whose husbands knew that they used a method ( $49.5 \pm 29.7$ ) than other groups ( $p=0.000$ ) (Table 5).

### **The Relationship between the Total and Sub-Dimensions Mean Score of the Family Planning Attitude Scale and the Perception Scale of Barriers to Contraceptive Use**

A strong negative relationship was found between the mean total score of FPAS and the mean total score of PSBCU ( $r=-0.539$ ,  $p=0.000$ ) and emotional domain ( $r=-0.519$ ,  $p=0.000$ ). A moderate negative relationship was determined between the mean of FPAS total score and the mean of social ( $r=-0.485$ ,  $p=0.000$ ) and cognitive domain score ( $r=-0.482$ ,  $p=0.000$ ).

There was a strong negative relationship between the sub-dimension of attitudes of society towards FP and the mean total score of PSBCU ( $r=-0.502$ ,  $p=0.000$ ). A negative medium significant relationship was determined between the attitudes of society towards FP sub-dimension and the emotional ( $r=-0.472$ ,  $p=0.000$ ), social ( $r=-0.462$ ,  $p=0.000$ ), and cognitive domain ( $r=-0.476$ ,  $p=0.000$ ).

A statistically significant negative and medium level relationship was detected between the attitude towards FP methods and the total score of PSBCU ( $r=-0.476$ ,  $p=0.000$ ), emotional ( $r=-0.463$ ,  $p=0.000$ ), social ( $r=-0.431$ ,  $p=0.000$ ), and cognitive domain ( $r=-$  between 0.405  $p=0.000$ ).

A moderate negative relationship was found between the mean score of attitudes towards birth and the score of PSBCU total ( $r=-0.460$   $p=0.000$ ), emotional ( $r=-0.443$   $p=0.000$ ), cognitive ( $r=-0.405$ ,  $p=0.000$ ) and social domain ( $r=-0.407$   $p=0.000$ ) (data not shown in the table).

## **4. DISCUSSION**

In the current study, women's attitudes towards FP and perceived barriers to contraceptive methods and affecting factors were examined. Women's attitude towards FP was positive but not at the desired level, and their perception of obstacles to birth control methods was at a medium level. At the time of this research, there was only one published study with women in the early postpartum period in Mersin using the PSBCU scale, and the total mean score was determined  $90.8 \pm 8.1$  (1). Higher than the present study, the mean total score of FPAS was found to be between 122.0 and 128.6 in studies conducted in the Black Sea region in Türkiye (18,19). In studies conducted in other regions, the mean total score of FPAS was determined between 120.1 and 137.5 (20-22). Lower than the findings of this research, the mean total score of FPAS was found  $109.1 \pm 18.7$  (2),  $117.6 \pm 11.1$  in Konya (23),  $96.7 \pm 11.5$  in Şanlıurfa (24),  $81.3 \pm 17.3$  in Izmir (25) and  $113.8 \pm 13.0$  in Niğde (26). As seen in the research results, the mean total score of FPAS varies according to provinces in Türkiye, being affected by the socio-demographic, obstetric, and economic characteristics of women.

**Table 2.** The Relationship Between Descriptive Characteristic of Women and the Family Planning Attitude Scale

Descriptive characteristic of women	Sub-dimensions of Family Planning Attitude Scale									Total		
	Attitudes of society towards family planning			Attitudes towards family planning methods			Attitudes towards birth			Mean ± Sd	Median (IQR)	Test and p
	Mean ± Sd	Median (IQR)	Test and p	Mean ± Sd	Median (IQR)	Test and p	Mean ± Sd	Median (IQR)	Test and p			
<b>Age groups</b>												
≤33	57.7 ± 18.5	24.0 (65.0)	*14628.0	37.3 ± 13.6	23.0 (35.0)	*17251.5	25.6 ± 12.5	26.5 (24.0)	*15787.0	120.6 ± 39.3	64.0 (124.0)	*15336.0
>34	51.6 ± 19.2	32.0 (56.0)	<b>p=0.001</b>	35.8 ± 13.0	18.0 (34.0)	p=0.358	22.7 ± 13.1	30.5 (22.0)	<b>p=0.021</b>	110.1 ± 39.6	63.0 (111.0)	<b>p=0.007</b>
<b>Marital status</b>												
Married (a)	55.1 ± 19.5	29.8 (63.0)	a>c, b>c	37.6 ± 14.0	23.5 (37.0)	a>c	25.0 ± 13.3	32.0 (27.0)	a>c, b>c	117.8 ± 42.5	74.8 (126.0)	a>c, b>c
Single (b)	56.3 ± 18.6	22.0 (61.0)	**11.540	35.1 ± 11.9	13.0 (33.0)	**6.913	23.6 ± 11.5	22.5 (23.0)	**7.129	115.0 ± 34.6	45.5 (114.0)	**10.691
Divorced (c)	46.1 ± 15.5	22.0 (46.0)	<b>p=0.003</b>	33.1 ± 10.3	13.5 (31.0)	<b>p=0.032</b>	18.8 ± 12.1	21.5 (13.0)	<b>p=0.028</b>	98.0 ± 24.9	39.5 (100.0)	<b>p=0.005</b>
<b>Education status</b>												
Literate (a)	34.4 ± 19.5	29.5 (36.0)	c>a, c>b	24.9 ± 14.6	22.5 (29.0)	c>a, c>b	12.6 ± 10.7	10.5 (8.0)	c>a c>b	71.8 ± 41.5	40.5 (70.0)	c>a, c>b
Primary education (b)	41.6 ± 16.5	30.8 (53.0)	**61.528	32.2 ± 11.0	10.5 (33.0)	**34.040	18.5 ± 11.3	19.3 (18.0)	**49.628	96.7 ± 29.7	45.3 (101.5)	**64.765
High school and above (c)	59.4 ± 18.0	24.0 (64.0)	<b>p=0.000</b>	39.1 ± 13.2	22.0 (39.0)	<b>p=0.000</b>	27.5 ± 12.4	28.0 (28.0)	<b>p=0.000</b>	125.7 ± 38.6	62.0 (127.0)	<b>p=0.000</b>
<b>Family type</b>												
Nuclear	56.3 ± 18.8	25.5 (63.0)	*10424.0	37.9 ± 13.3	22.0 (37.0)	*10036.5	25.3 ± 12.6	28.0 (26.0)	*10247.0	119.5 ± 39.3	64.0 (124.0)	*10035.5
Extended	102.5 ± 38.5	29.5 (46.0)	<b>p=0.000</b>	32.5 ± 12.6	11.0 (29.0)	<b>p=0.000</b>	20.4 ± 12.8	21.5 (10.0)	<b>p=0.000</b>	102.5 ± 38.5	53.0 (93.0)	<b>p=0.000</b>
<b>Income status</b>												
Medium (a)	57.2 ± 18.5	22.3 (64.5)	a>c, b>c	37.3 ± 12.9	20.0 (35.0)	b>a, a>c, b>c	25.9 ± 12.1	25.3 (26.5)	a>c, b>c	120.4 ± 37.3	54.3 (124.0)	b>a, b>c,
High (b)	58.5 ± 21.1	29.5 (67.5)	**29.279	43.4 ± 15.3	19.8 (49.5)	**34.155	28.7 ± 13.4	26.0 (37.0)	**33.044	130.6 ± 46.7	60.0 (145.5)	b>c
Low (c)	48.1 ± 17.5	27.8 (47.5)	<b>p=0.000</b>	32.0 ± 11.4	12.0 (32.0)	<b>p=0.000</b>	18.8 ± 12.2	21.5 (14.0)	<b>p=0.000</b>	98.9 ± 35.0	47.5 (92.0)	**38.644
												<b>p=0.000</b>
<b>Place of residence</b>												
City (a)	61.3 ± 17.9	16.0 (69.0)	a>b, a>c,	41.7 ± 14.0	22.0 (44.0)	a>b, a>c, b>c	29.2 ± 12.7	20.8 (35.5)	a>b, a>c,	132.3 ± 40.6	50.3 (141.5)	a>b, a>c,
District (b)	54.3 ± 18.1	26.0 (59.0)	b>c	35.5 ± 11.6	14.0 (33.0)	**39.133	23.1 ± 11.9	22.0 (23.0)	b>c	112.9 ± 34.1	52.0 (112.0)	b>c
Village (c)	41.5 ± 18.4	25.5 (40.5)	**44.234	29.5 ± 13.7	18.5 (31.0)	<b>p=0.000</b>	16.7 ± 12.2	16.0 (8.0)	**39.000	87.7 ± 39.9	53.0 (80.0)	**54.683
			<b>p=0.000</b>						<b>p=0.000</b>			<b>p=0.000</b>

\* Mann Whitney U test \*\* Kruskal Wallis test IQR= Inter Quantile Range



**Table 3.** The Relationship Between Women's Use of Birth Control Methods and the Family Planning Attitude Scale

Characteristics	Sub-dimensions of the Family Planning Attitude Scale											
	Attitudes of society towards family planning			Attitudes towards family planning methods			Attitudes towards birth			Total		
	Mean±Sd	Median (IQR)	Test and p	Mean ± Sd	Median (IQR)	Test and p	Mean ± Sd	Median (IQR)	Test and p	Mean ± Sd	Median (IQR)	Test and p
<b>Have you used any birth control method in the last month?</b>												
Yes	58.8 ± 20.1	22.0 (68.0)	*12172.5	41.0 ± 14.7	24.0 (44.0)	*11267.0	41.0 ± 14.7	26.0 (32.0)	*11267.0	127.3 ± 44.2	66.5 (140.0)	*11418.0
No	52.3 ± 18.1	28.0 (57.0)	<b>p=0.000</b>	34.1 ± 11.8	14.5 (33.0)	<b>p=0.000</b>	34.1 ± 11.8	26.0 (21.0)	<b>p=0.000</b>	108.7 ± 35.4	52.5 (110)	<b>p=0.000</b>
<b>Does your partner know that you use birth control?</b>												
Yes (a)	59.3 ± 20.6	20.0 (69.0)	a>b, a>c	41.7 ± 15.0	21.8 (47.0)	a>b, a>c	41.7 ± 15.0	24.8 (33.5)	a>b, a>c	129.5 ± 45.1	58.3 (144.0)	a>b, a>c
No (b)	53.3 ± 13.7	21.0 (55.0)	**23.975	34.2 ± 9.0	13.5 (35.0)	**33.049	34.2 ± 9.0	22.0 (15.0)	**33.049	106.5 ± 27.7	41.0 (102.0)	**32.982
Not using method (c)	52.3 ± 18.1	28.0 (57.0)	<b>p=0.000</b>	35.1 ± 11.9	14.5 (33.0)	<b>p=0.000</b>	35.1 ± 11.9	26.0 (21.0)	<b>p=0.000</b>	108.7 ± 35.4	52.5 (110.0)	<b>p=0.000</b>
<b>Have you received counseling about birth control methods?</b>												
Yes	59.1 ± 20.0	22.0 (69.0)	*11902.5	41.5 ± 14.5	22.0 (45.0)	*10708.5	27.9 ± 13.3	26.0 (32.0)	*12490.0	128.3 ± 44.1	62.0 (142.0)	*11044.5
No	52.1 ± 8.0	28.0 (57.0)	<b>p=0.000</b>	33.8 ± 11.7	15.0 (33.0)	<b>p=0.000</b>	22.0 ± 12.1	25.0 (21.0)	<b>p=0.000</b>	108.0 ± 35.0	49.0 (109.0)	<b>p=0.000</b>
<b>Is the gender of the person receiving counseling important?</b>												
Yes	46.7 ± 16.3	23.0 (46.5)	*9147.5	31.7 ± 11.1	12.0 (32.0)	*11215.0	17.7 ± 11.7	18.0 (12.0)	*9128.0	96.2 ± 33.5	44.8 (92.5)	*8981.0
No	59.2 ± 19.1	18.0 (67.0)	<b>p=0.000</b>	39.4 ± 13.7	26.0 (41.0)	<b>p=0.000</b>	27.9 ± 12.0	22.0 (30.5)	<b>p=0.000</b>	126.5 ± 38.9	57.3 (134.0)	<b>p=0.000</b>
<b>Was your last pregnancy planned?</b>												
Yes	58.9 ± 19.1	20.8 (67.0)	*5523.5	40.0 ± 14.1	26.0 (42.0)	*6074.5	28.2 ± 12.6	24.0 (32.0)	*5297.0	127.1 ± 42.4	65.8 (139.5)	*5265.5
No	49.7 ± 17.6	28.0 (50.0)	<b>p=0.000</b>	34.4 ± 12.2	16.0 (33.0)	<b>p=0.000</b>	19.9 ± 12.5	23.0 (15.0)	<b>p=0.000</b>	104.0 ± 35.2	49.0 (105.0)	<b>p=0.000</b>

\* Mann Whitney U test \*\* Kruksal Wallis test IQR= Inter Quantile Range

**Table 4.** The Relationship Between Descriptive Characteristics of Women and the Perception Scale of Barriers to Contraceptive Use

Descriptive characteristics of women	Sub-dimensions of the Perception Scale of Barriers to Contraceptive Use											
	Emotional domain			Social domain			Cognitive domain			Total		
	Mean±Sd	Median (IQR)	Test and p	Mean±Sd	Median (IQR)	Test and p	Mean±Sd	Median (IQR)	Test and p	Mean±Sd	Median (IQR)	Test and p
<b>Age groups</b>												
≤33	28.0 ± 14.0	25.5 (27.0)	*13187.0	20.1 ± 11.5	14.0 (18.0)	*11464.0	17.1 ± 11.3	15.0 (11.0)	*11586.5	65.1 ± 34.1	51.0 (55.0)	*12086.0
>34	35.7 ± 16.4	32.0 (37.0)	<b>p=0.000</b>	29.7 ± 15.8	30.5 (27.0)	<b>p=0.000</b>	25.9 ± 14.8	32.5 (25.0)	<b>p=0.000</b>	91.3 ± 44.6	87.0 (98.0)	<b>p=0.000</b>
<b>Marital status</b>												
Married (a)	30.9 ± 16.8	34.0 (29.0)	c>a, c>b	26.9 ± 16.0	31.8 (22.0)	a>b, c>b	22.0 ± 14.9	31.0 (13.0)	a>b, c>a, c>b	79.8 ± 46.0	87.8 (62.5)	c>a, c>b
Single (b)	30.3 ± 12.1	18.5 (32.0)	**17.040	18.5 ± 8.8	13.5 (19.0)	**22.337	17.3 ± 9.9	16.0 (14.0)		66.1 ± 27.7	41.5 (64.0)	**13.935
Divorced (c)	42.7 ± 11.1	18.0 (44.0)	<b>p=0.000</b>	27.0 ± 10.6	13.0 (27.0)	<b>p=0.000</b>	28.8 ± 11.0	18.0 (33.0)	**20.533	98.5 ± 28.4	38.5 (100.0)	<b>p=0.001</b>
<b>Education status</b>												
Literate (a)	37.1 ± 11.6	7.0 (55.0)	a>b, b>c	23.0 ± 14.8	12.0 (47.0)	**2.232	22.7 ± 12.3	5.0 (45.0)	*5.972	82.8 ± 34.4	29.0 (141.0)	b>c
Primary education (b)	35.5 ± 14.2	22.0 (40.5)	**11.670	26.0 ± 14.2	28.3 (27.0)	p=0.328	24.1 ± 13.3	23.3 (30.5)	p=0.050	85.7 ± 39.0	62.0 (96.5)	**7.969
High school and above (c)	30.0 ± 16.2	29.0 (25.0)	<b>p=0.003</b>	24.5 ± 14.8	17.0 (18.0)		20.3 ± 14.1	15.0 (11.0)		74.8 ± 42.9	59.0 (55.0)	<b>p=0.019</b>
<b>Family type</b>												
Nuclear	39.7 ± 15.1	27.5 (27.0)	*9180.0	22.6 ± 13.6	18.0 (18.0)	*8781.5	19.3 ± 13.1	18.0 (12.0)	*8688.0	71.6 ± 39.3	61.0 (56.0)	*8681.0
Extended	38.4 ± 15.7	19.0 (49.0)	<b>p=0.000</b>	31.8 ± 15.6	27.0 (41.0)	<b>p=0.000</b>	28.2 ± 14.2	24.0 (40.0)	<b>p=0.000</b>	98.3 ± 42.8	66.0 (128.0)	<b>p=0.000</b>
<b>Income status</b>												
Medium (a)	28.9 ± 14.6	25.3 (27.5)	a>b, c>b, c>a	22.1 ± 13.6	16.0 (18.5)	a>b, c>a, c>b	18.2 ± 12.3	17.0 (12.0)	a>b, c>a, c>b	69.2 ± 37.8	55.5 (58.5)	a>b, c>a, c>b
High (b)	20.3 ± 12.7	15.5 (15.0)		16.2 ± 8.5	8.0 (11.0)		12.8 ± 8.6	3.0 (9.0)		49.3 ± 27.5	21.0 (39.5)	
Low (c)	42.7 ± 12.3	21.0 (47.0)	**93.584	34.1 ± 14.2	23.5 (33.0)	**78.439	31.4 ± 13.0	26.0 (35.0)	**91.986	108.1 ± 36.7	62.5 (112.5)	**97.990
<b>Place of residence</b>												
City (a)	21.5 ± 12.0	19.0 (18.0)	b>a, c>a, c>b	17.4 ± 10.3	10.0 (11.5)	b>a, c>a, c>b	14.0 ± 9.3	6.3 (9.0)	b>a, c>a, c>b	52.9 ± 29.3	34.8 (42.5)	b>a, c>a, c>b
District (b)	33.4 ± 14.5	24.0 (34.0)		24.7 ± 13.3	20.8 (23.0)		21.3 ± 13.0	24.0 (17.0)		79.4 ± 37.8	62.0 (74.0)	
Village (c)	48.4 ± 9.9	8.0 (54.0)	**116.792	41.7 ± 13.3	22.0 (45.0)	**93.348	38.2 ± 10.5	7.8 (43.0)	**94.712	128.2 ± 30.5	39.8 (138.0)	**116.795
<b>p=0.000</b>												

\* Mann Whitney U test \*\* Kruksal Wallis test IQR= Inter Quantile Range

**Table 5.** The Relationship Between Women's Use of Birth Control Methods and the Perception Scale of Barriers to Contraceptive Use

Characteristics	Sub-dimensions of the Perception Scale of Barriers to Contraceptive Use											
	Emotional domain			Social domain			Cognitive domain			Total		
	Mean±Sd	Median (IQR)	Test and p	Mean±Sd	Median (IQR)	Test and p	Mean±Sd	Median (IQR)	Test and p	Mean±Sd	Median (IQR)	Test and p
<b>Have you used any birth control method in the last month?</b>												
Yes	20.9 ± 12.8	16.0 (15.0)	*6305.5	18.7 ± 11.7	11.0 (13.0)	*10397.5	14.1 ± 10.4	4.0 (9.0)	*9381.5	53.8 ± 33.2	27.5 (41.0)	*7341.0
No	37.9 ± 13.8	23.0 (39.0)	<b>p=0.000</b>	28.3 ± 15.0	26.0 (25.0)	<b>p=0.000</b>	25.5 ± 13.9	28.0 (24.0)	<b>p=0.000</b>	91.7 ± 39.9	66.5 (89.0)	<b>p=0.000</b>
<b>Does your partner know that you use birth control?</b>												
Yes (a)	19.3 ± 11.7	13.0 (14.5)	b>a, c>a	17.4 ± 10.7	9.0 (11.0)	b>a, c>a	12.8 ± 8.9	0.0 (9.0)	b>a, c>a	49.5 ± 29.7	21.0 (37.5)	b>a, c>a
No (b)	36.1 ± 12.7	22.0 (33.0)	**116.54	31.5 ± 13.6	21.5 (34.0)	**51.188	27.0 ± 15.0	33.0 (27.0)	**63.976	94.5 ± 38.4	70.5 (99.0)	**99.757
Not using method (c)	37.9 ± 13.8	23.0 (39.0)	<b>p=0.000</b>	28.3 ± 15.0	26.0 (25.0)	<b>p=0.000</b>	25.5 ± 13.9	28.0 (24.0)	<b>p=0.000</b>	91.7 ± 39.9	66.5 (89.0)	<b>p=0.000</b>
<b>Have you received counseling about birth control methods?</b>												
Yes	21.0 ± 13.1	17.0 (15.0)	*6297.5	18.6 ± 11.7	11.0 (11.0)	*10092.0	13.5 ± 9.5	3.0 (9.0)	*8833.0	53.1 ± 32.5	27.0 (41.0)	*6981.0
No	38.0 ± 13.6	23.0 (39.0)	<b>p=0.000</b>	28.4 ± 14.9	24.0 (25.0)	<b>p=0.000</b>	26.0 ± 13.9	28.0 (25.0)	<b>p=0.000</b>	92.4 ± 39.7	65.0 (90.0)	<b>p=0.000</b>
<b>Is the gender of the person receiving counseling important?</b>												
Yes	43.9 ± 11.9	20,0 (47,0)	*5087.5	35.7 ± 14.9	25.8 (35.0)	*6140.5	33.6 ± 12.5	21.5 (40.0)	*4025.0	113.3 ± 6.2	57.0 (122.0)	*4383.5
No	24.8 ± 13.2	23.3 (22.0)	<b>p=0.000</b>	18.6 ± 10.1	12.0 (15.0)	<b>p=0.000</b>	14.4 ± 8.8	9.0 (9.0)	<b>p=0.000</b>	57.7 ± 29.4	42.3 (47.0)	<b>p=0.000</b>
<b>Was your last pregnancy planned?</b>												
Yes	24.0 ± 14.9	26.0 (17.5)	*3341.0	21.1 ± 13.5	16.0 (13.5)	**3341.0	16.3 ± 11.8	10.5 (9.0)	*4035.5	61.5 ± 38.5	51.3 (44.0)	*3517.5
No	41.0 ± 13.7	25.0 (46.0)	<b>p=0.000</b>	33.3 ± 15.3	28.0 (33.0)	<b>p=0.000</b>	29.8 ± 14.2	28.0 (34.0)	<b>p=0.000</b>	104.1 ± 0.3	76.0(111.0)	<b>p=0.000</b>

\* Mann Whitney U test \*\* Kruksal Wallis test IQR= Inter Quantile Range

In international studies, it has been reported that women's reproductive health was negatively affected by various factors. These included inadequate information, negative attitudes, limited access to services, opposition to the use of methods by the spouse and family, cultural beliefs, and prohibitive social norms (9,10). In addition, many factors such as the woman's age, educational and socio-economic status, structure of family or society, the attitude of women's husbands and religious beliefs affect women's choice and use of method (11,13, 27). In this study, the mean total score of FPAS was determined to be higher and the PSBCU total score was determined to be lower in young women (less than 33 years of age). The reason why young women's attitudes towards FP were high and perceived barriers to contraceptive methods were low may be related to the higher education level of this age group compared to older women. Similarly, in a province in the Western Black Sea Region, the mean FPAS total score of women aged 18-35 was found to be higher than that of women aged 36-49 (19). Contrary to the findings of this study, in studies conducted in Ankara (22) and Şanlıurfa (21) the average of FPAS total score was found low younger women.

In the present study, it was observed that married women had higher mean total score of the FPAS (117.8) and the total mean score of PSBCU (79.8) than divorced women. Additionally, single women compared to divorced women had higher mean total scores from the FPAS and the PSBCU. Similar to this finding, a study in the Western Black Sea region found that the mean score of FPAS was higher in married women than in single women (19).

Studies have shown that as women's education level increases, it is easier to access FP services and women use birth control methods more (19, 27). In this study, the mean PSBCU score was found to be the lowest and the average FPAS total score was found to be the highest in women with high school education and above, and it was observed that the mean score increased as the education level increased. Similar to the research findings, in studies conducted in our country, the mean FPAS total scores of university graduate women were  $125.2 \pm 18.4$  (2),  $147.5 \pm 19.7$  (22), and  $134.4 \pm 14.7$  (18). The mean score varies between 119.9 and 147.4 for those with high school education or higher (19, 21, 23, 26). Unlike this study, the mean postpartum FPAS total score of university graduate women was found to be low in some studies (1, 25). In a study conducted in Kars province, it was determined that the mean FPAS total score of women from 115.3 before FP education (1). As seen from the present and previous studies' findings, women's high level of education positively affects FP attitudes and reduces perceived barriers to birth control methods. Therefore, it can be said that increasing the education level of women contributes to their level of awareness and attitudes FP.

In the research, the mean PSBCU total score was higher in those living in an extended family than in those living in a nuclear family. Similar to the current study, studies showed that women living in nuclear families had higher FP attitudes than women living in extended family types, and it determined that the mean score of women living in nuclear families varies between  $116.9 \pm 14.6$  and  $135.7 \pm 21.1$  (21-23,26). In our country, fertility is important in the extended family structure, and the education level and employment status of women living in this family type were lower than women living in nuclear families.

In the present study, the mean PSBCU total score (49.3) was determined to be lower and the mean FPAS total score (130.6) was higher in women whose income was high. In similar studies, the FPAS total mean score of women with high income was found to be  $120.0 \pm 12.8$  (23) and  $124.3 \pm 17.8$  (19). Women's income level is related to their employment status and education level, and women with higher income levels had more positive attitudes towards FP and their perceived obstacles decreased because their awareness of contraceptive methods was high. The reason why FP attitudes are low among poor women may be related to the cost of the methods.

In this study, it was determined that the mean FPAS total score of women living in the city was higher and their perception of obstacles regarding birth control methods was lower and this finding was consistent with the results of other studies (1,22). For this reason, counseling can be provided to women who do not live in the city center and the knowledge level of women who cannot come to health centers can be increased by distributing posters, brochures, and handbooks that introduce the methods. In addition, it is important that health professionals provide services regarding birth control methods to women living in rural areas.

In this study, it was found that women with planned pregnancies had more positive attitudes toward FP than those with unplanned pregnancies and the perception of barriers regarding birth control methods was lower in women with planned pregnancies. It is a positive and expected finding that women with planned pregnancies had positive attitudes towards FP and that they planned their fertility more consciously. In studies conducted in Niğde (26) and İzmir (25) in our country, no statistically significant difference was determined between the planned pregnancy and FP attitudes.

In most developing countries, men can be the determinant in FP method selection and pregnancy decisions. In this study, it was found that women who were aware of and used birth control methods and women whose husbands knew that they used a birth control method had a lower perception of barriers to birth control methods. In addition, the FPAS total mean score was found to be higher in women who used birth control methods (128.8) than in those who did not use any methods (104.3), and their FP attitudes were found to be more positive. This research finding was parallel to the studies conducted on this subject, and the mean score varies between 116.7 and 137.8 in those using birth control methods (19, 26). Contrary to the findings of this study, the FPAS total mean score was found to be lower in women in Şanlıurfa, who used birth control methods (122.9) than in those who did not use any methods (128.7) (21). As seen from the study results, being aware of and using contraceptive methods reduces women's perceived obstacles and contributes to their positive attitudes toward FP. In light of the findings of this research and previous studies, it is important to provide counseling to women and their partners who did not use birth control methods and had negative attitudes about it, taking into account their sociocultural characteristics. Providing this counseling by health professionals who have up-to-date knowledge and strong communication skills may contribute to couples' reduction in their perceived obstacles to birth control methods and their negative attitudes towards FP, thus increasing couples' use of the method.

It emphasized in the literature that FP attitudes of women were more positive, and the use of modern methods was higher in women who received counseling (2, 15, 23). In the study, it was determined that women who received counseling about birth control methods and those who thought that the gender of the person they received counseling was not important had lower perceptions of obstacles to birth control methods and more positive attitudes towards FP. In parallel with the previous findings, the mean FPAS total score in women who received counseling about contraception was  $114.0 \pm 13.0$  (26),  $124.0 \pm 15.7$  (19),  $118.7 \pm 11.5$  (23) and  $112.5 \pm 18.7$  (2). As can be seen from the research, women who receive counseling had positive FP attitudes, therefore providing women with information and consultancy services about birth control methods can help women choose the most appropriate method and use it. Providing FP counseling, explaining all modern methods to women, choosing the most effective method in terms of sociodemographic-economic, and cultural aspects, and eliminating women's misconceptions about birth control methods can play an important role in increasing the use of birth control methods.

### **Limitations of the Study**

The limitation of this study is that the data cannot be generalized to Turkey because it was conducted with women applying to a university hospital and the findings were based on the statements of women.

## **5. CONCLUSION**

In the study, women who were young, married, graduated from high school or above, had a nuclear family, had a high-income level, lived in the city center, had a planned pregnancy, knew birth control methods, used them, and received counseling on this subject had better attitudes towards FP and were less perceived obstacles. Women's attitude toward family planning was generally positive but not at the desired level, and their perception of obstacles to birth control methods was moderate. It is very important for health professionals to provide counseling and training to determine the perceived barriers of women toward birth control methods and to develop a positive attitude towards FP in women. In future studies, it is important to provide counseling to disadvantaged women who have negative FP attitudes and who have perceived barriers to contraception methods to prevent unwanted pregnancies and to monitor these women by health professionals.

### **Implications for Midwifery or Nursing Care and Future Research**

This study may guide nurses and midwives working in the field of FP in providing counseling services to women. This study raises awareness of barriers to birth control and a perspective on developing women's positive attitudes toward FP for nurses and midwives when providing care to women. A future study to be conducted with a large sample group representing the whole of Turkey will provide information about women's FP attitudes and perceived barriers to birth control methods.

### **Conflict of Interest Statement**

The authors declare that they had no conflicts of interest.

### **Ethical Consideration of the Study**

Ethical approval (date: 05.12.2018 number: 20.478.486) from “Manisa Celal Bayar University” Ethics Committee and permission from “Uludag University Health Research and Practice Hospital” were taken to conduct the research. Written consent was obtained from women who wanted to participate in the study, based on the Declaration of Helsinki. Permission to use the scales in the study was obtained from Örsal for the FPAS and from Şen for the PSBCU.

### **Funding**

We confirm that we have not taken any funding support.

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