



## Investigation of Nulliparous Women's Attitudes Toward Fertility and Childbearing

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### Review Article

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### ABSTRACT

The aim of this study is to determine the attitudes of nulliparous women toward fertility and childbirth.

The research was carried out as a cross-sectional descriptive method with improbable sampling technique. Recruitment for participation in the study took place with power analysis and consisted of 213 nulliparous women who had never been pregnant before. Data were collected with the Personal Information Form and the Attitudes Toward Fertility and Childbearing Scale.

54% of the women are between the ages of 19-26 and the mean age is 26.51±5.19. It was determined that 76.5% of the women were married for 1-3 years and 65.7% of them used contraception. The total score of the Attitudes Towards Fertility and Childbearing Scale is 69.54±8.28, and the mean subscale score current obstacle 21.57±7.08; importance in the future 28.42±4.63; female identity is 19.55±3.82. It has been determined that women have a positive attitude to fertility and childbearing. In comparison with the total score of the scale and the variables, it was determined that there was a significant difference between variables of age, occupation status, spouse's age, spouse's occupation status, spouse's smoking status, consanguineous marriage, family type, financial status, spouse's age at marriage and mean value of total scale score.

The fact that nulliparous women's attitudes to fertility and childbearing are affected by many factors such as age, occupation status, spouse's age shows that there are many variables that should be considered during the evaluation of nulliparous women by midwives. It is very important for pregnancy planning that women in the preconceptional period have positive attitudes to fertility and childbearing.

**Keywords:** Nullipara, Fertility, Childbirth, Attitude

## Nulipar Kadınların Doğurganlığa ve Doğuma Yönelik Tutumlarının İncelenmesi

### Süreç

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### Öz

Bu çalışmanın amacı doğum yapmamış kadınların doğurganlığa ve doğuma ilişkin tutumlarını belirlemektir.

Araştırma olasılık dışı örnekleme tekniği ile kesitsel betimsel yöntem olarak gerçekleştirilmiştir. Araştırmaya katılım güç analizi ile gerçekleştirilmiş ve daha önce hiç hamile kalmamış 213 nulipar kadın katılmıştır. Veriler Kişisel Bilgi Formu ve Doğurganlığa ve Çocuk Doğurmaya İlişkin Tutum Ölçeği kullanılarak toplanmıştır.

Kadınların %54'ü 19-26 yaş aralığında olup yaş ortalaması 26,51±5,19'dur. Kadınların %76,5'inin 1-3 yıldır evli olduğu, %65,7'sinin gebeliği önleyici yöntem kullandığı belirlendi. Doğurganlığa ve Çocuk Doğurmaya Yönelik Tutum Ölçeği toplam puanı 69,54±8,28 olup, alt ölçek mevcut engel puan ortalaması 21,57±7,08; gelecekte önemi 28,42±4,63; kadın kimliği 19,55±3,82'dir. Kadınların doğurganlık ve çocuk doğurma konusunda olumlu tutuma sahip oldukları belirlendi. Ölçeğin toplam puanı ve değişkenler karşılaştırıldığında yaş, meslek durumu, eşin yaşı, eşin meslek durumu, eşin sigara içme durumu, akraba evliliği, aile tipi, maddi durum, eşin evlenme yaşı ve toplam ölçek puanının ortalama değeri.

Doğum yapmamış kadınların doğurganlık ve çocuk doğurma konusundaki tutumlarının yaş, meslek durumu, eş yaşı gibi birçok faktörden etkileniyor olması, doğum yapmamış kadınların ebeler tarafından değerlendirilmesi sırasında dikkate alınması gereken birçok değişkenin olduğunu göstermektedir. Prekonsepsiyonel dönemdeki kadınların doğurganlığa ve çocuk sahibi olmaya yönelik olumlu tutumlara sahip olmaları gebelik planlaması açısından oldukça önemlidir.

**Anahtar Sözcükler:** Nulipar, Doğurganlık, Doğum, Tutum

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## Introduction

One of the most important choices for couples is the decision to become a parent. Although the decision to become a parent is thought to begin before pregnancy occurs after marriage, it is a fact that couples at duration of marriage clarify before marriage<sup>[1]</sup>. Because with the couple's decision to become a parent, the guiding roles that will support their children's basic needs and emotional needs in development will be added into their own responsibilities.<sup>[1,2]</sup> Economic, social, emotional, and individual factors in parenthood roles will also affect the first child decision<sup>[3]</sup>. Beliefs, attitudes, and motivational factors are added to other factors affecting this decision<sup>[4]</sup>. Besides, due to the increase in the responsibilities of women compared to men, the concept of late motherhood appears<sup>[5]</sup>. Especially in traditional societies, while the concept of motherhood is seen as a complement to femininity and a source of happiness<sup>[6]</sup>, not being a mother is expressed as a deficiency<sup>[5]</sup>. Despite this situation, radical changes in women's lives can cause them to postpone their decision to become a mother or not to be a mother. Among the reasons why women postpone motherhood, which means the role and status that affect their decisions, can be counted as the financial freedom they have gained by taking an active role in working life and the freedom in their own choice decision<sup>[7]</sup>. Generally, decreases in birthrate are inevitable because of postponing motherhood or the decision of not wishing to be a mother. Due to the factors affecting the childbearing, births have tended to decrease in the last 30 years and the elderly population has started to increase<sup>[8]</sup>.

According to the data of the Turkish Statistical Institute (TUIK), while the total birthrate was 2.42 children per woman in the world in 2021, this rate was determined as 1.70 in our country<sup>[9]</sup>. For many countries, the falling birthrate is seen as a worrying situation. The economic uncertainties are among the reasons for this decline<sup>[10]</sup>. When reasons such as uncertainty in business life, temporary employment, unemployment and future anxiety are added to economic uncertainty, couples delay their decisions to become parents<sup>[10-12]</sup>. In addition to these factors affecting fertility, future scenarios resulting from negative events in the past are also reported to affect fertility<sup>[13]</sup>.

Assuming that the birthrate is one of the important development indicators of a country, defining the reasons for the decline will be beneficial in taking precautions for the birthrate. It is thought that determining the Attitudes towards Fertility and Childbearing of nulliparous women

delayed pregnancy will provide information on the causes of the birthrate tending to decrease. Birthrates tending to decrease not only in our country but also all over the world, are in the center of attention of the scientific world. When we look at the literature review, we mostly come across studies that show economic uncertainty causes fertility delays<sup>[10-13]</sup>. However, it should not be ignored that the delay in fertility is not limited to economic reasons but may be due to personal reasons<sup>[14]</sup>. For this reason, the research was planned to examine the attitudes of nulliparous women to fertility and childbearing by focusing on the decrease in the birthrate.

## Research question

1. Do socio-demographic characteristics of nulliparous women affect their attitudes to fertility and childbearing?
2. Does being nullipara affect attitudes to fertility and childbearing?

## Limitations (If exist)

The findings obtained from this study cover only the nulliparous women included in the study and cannot be generalized to all women.

## Material and Method

### The Objective and Type of This Research:

The research was conducted as a cross-sectional and descriptive study with the improbable sampling method to determine the attitudes of nulliparous women to fertility and childbearing.

### Place and Time of Research:

It was conducted on nulliparous women who applied to the Obstetrics and Gynecology Polyclinics between 10.05.2022 and 30.07.2022 in a state hospital and a university hospital in Tokat province.

## Population and Sample

G\*Power 3.1.9.7 program was used to determine the sample of research. The medium effect size suggestion of Cohen (1988) was taken into consideration, and it was determined by taking 80% ( $1-\beta=0.80$ ) power and 5% ( $\alpha=0.05$ ) margin of error<sup>[15]</sup>. As a result of the calculation, 213 nulliparous women were included in the study. According to the post-hoc analysis performed at the end of the study,

80% power ( $1-\beta=0.808$ ), 5% ( $\alpha=0.05$ ) and medium effect size ( $f^2=0.038$ ) were reached with 213 women.

#### Inclusion criteria in the study.

- In the age group of 19-49
- Able to read and write.
- Living in the city center
- Never been pregnant before (nulliparous)
- No perception and communication problems
- Agreed to participate in the research.

#### Exclusion criteria for the study:

Adolescent women and women who did not agree to participate were not included.

#### Data Collection Tools:

**Personal information form:** In the form created by the researchers by analyzing the literature<sup>[16,17]</sup> there are 21 questions containing the socio-demographic information of the mothers (such as age, education, occupation status, spouse's occupation status).

**Attitudes To Fertility and Childbearing Scale (AFCS):** The Attitude to Fertility and Childbearing Scale was developed by Söderberg and her friends in 2013 to evaluate and compare the attitudes of women who have not yet become mothers-oriented fertility and childbearing, and the second version was published in 2015 by developers<sup>[16]</sup>. Turkish validity and reliability of it was done by Damar and Bolsoy in 2021. The original scale consists of 3 sub-dimensions (importance for -7 articles, hindrance at present -9 articles, and female identity -5 articles) with a total of 21 articles. The scale is a 5-point Likert type (strongly disagree, disagree, neither agree nor disagree, agree, completely agree). There is no reverse coding in the scale items. The Kaiser Meyer-Okin (KMO) value for the sample adequacy of the original scale was found to be 0.945, and the Barlett test was found to be statistically significant for adequacy and factorization. The minimum score is 21 and the maximum score is 105, and the higher the score, the higher the attitude towards fertility and childbearing. In the validity analysis of the original scale; internal consistency and reliability of Cronbach's Alpha coefficients subscale and total

scale value were reported between 0.862 and 0.945. In our study, the Cronbach's Alpha value of the total scale was 0.75.

#### Ethical Aspect of Research:

Every stage of the research was carried out in accordance with ethical principles. The study was conducted in accordance with the Principles of the Declaration of Helsinki. Before starting the application, necessary permissions were obtained from Tokat Gaziosmanpaşa University Social and Human Sciences Research Ethics Committee (dated 27.04.2022, decision number E-33490967-044-158700), Tokat Provincial Health Directorate (dated 10.05.2022, E-87064461-044) and Tokat Gaziosmanpaşa University Health Research and Application Center Directorate (dated 05.05.2022, numbered E-72843479-044-160527). While the women who met the inclusion criteria were invited to participate in the study, the Informed Consent Form was read, and their consent was obtained. The decision about whether to participate in the research was left to the women, and their voluntariness was taken into consideration.

#### Analysis of Data

The data obtained in the research were evaluated in the Statistical Package for Social Sciences (SPSS) 24.0 package program. Descriptive statistical analyses (number, percentage, mean, standard deviation, maximum, and minimum) were used in the evaluation of the data. Considering the normality analysis Kolmogorov Smirnov and the skewness- kurtosis values being in the range of  $\pm 2$ , it was determined that the data obtained showed a normal distribution. The t test was used for the difference between the two means, and the one-way analysis of variance was used for more than two independent groups, and the error level was accepted as 0.05. Posthoc analysis was performed to determine between which groups the significance was formed (Tukey test). In addition, multiple linear regression was applied to the variables that were thought to influence the scale total score.

#### Findings

In Table 1 the distribution of the total and sub-scale means scores of the nulliparous women participating in the study on the Attitudes to Fertility and Childbearing Scale (AFCS) is given.

**Table 1: Comparison of Nulliparas' AFCS Total Score and Sub-scale Score Means (N=213)**

Scales	$\bar{X}$	SS	min	max	Cronbach alpha
<b>AFCS *</b>	69,54	8,28	46	96	0,75
Hindrance at present	21,57	7,08	9	37	0,90
Importance for future	28,42	4,63	10	35	0,89
Female identity	19,55	3,82	5	25	0,88

\*AFCS: Attitudes Toward Fertility and Childbearing Scale

It can be found that the total mean score of the Nulliparas' AFCS is  $69.54 \pm 8.28$ , and the highest score that could be obtained from the scale was 105 and according to this finding, nulliparas tend to fertility and childbearing above the average. The mean scores of the AFCS sub-dimensions were determined as hindrance at present  $21.57 \pm 7.08$ ; importance for future  $28.42 \pm 4.63$ ; female identity  $19.55 \pm 3.82$ . When the internal validity coefficient and reliability level of the AFCS were examined, it

was found that the general reliability levels of the scale sub-dimensions were high ( $0.80 < \alpha < 1.00$ ), and the overall reliability level of the total scale was quite reliable ( $0.60 < \alpha < 0.80$ )<sup>[18]</sup> (Table 1).

The comparison of the sociodemographic characteristics of the nulliparas in the study and the total and sub-scalescore averages of the AFCS are given in Table 2.

**Table 2: Distribution and Comparison of Sociodemographic and Marriage Characteristics of nulliparous women and Total and Sub-Dimensional Scores of the AFCS (N = 213)**

Specifications			Hindrance at present	Importance for future	Female identity	Total scale
	n	%	$\bar{X} \pm SS$	$\bar{X} \pm SS$	$\bar{X} \pm SS$	$\bar{X} \pm SS$
<b>Age</b>						
19-26 age (1)	115	54,0	20,00 $\pm$ 6,47	28,44 $\pm$ 4,21	19,79 $\pm$ 3,66	68,23 $\pm$ 7,23
27-34 age (2)	83	39,0	23,14 $\pm$ 7,35	28,70 $\pm$ 4,51	19,69 $\pm$ 3,64	71,53 $\pm$ 8,69
35 age and above (3)	15	7,0	24,87 $\pm$ 7,38	26,80 $\pm$ 7,57	17,00 $\pm$ 5,12	68,67 $\pm$ 11,49
			<b>6,863/0,001*</b>	1,070/0,345*	<b>3,709/0,026*</b>	<b>4,015/0,019*</b>
			<b>1-3</b>	-	<b>1-3, 2-3</b>	<b>1-2</b>
<b>Age Average</b>	26,51 $\pm$ 5,19 (min:19 – max:45)					
<b>Education</b>						
Primary (1)	30	14,1	16,60 $\pm$ 6,05	31,10 $\pm$ 3,42	22,53 $\pm$ 2,11	70,23 $\pm$ 7,06
Secondary (2)	40	18,8	17,68 $\pm$ 5,77	29,38 $\pm$ 3,69	20,88 $\pm$ 3,01	67,93 $\pm$ 5,68
High School (3)	49	23,0	20,96 $\pm$ 6,61	28,47 $\pm$ 4,04	19,33 $\pm$ 3,99	68,76 $\pm$ 8,53
University (4)	94	44,1	25,13 $\pm$ 6,23	27,15 $\pm$ 5,17	18,16 $\pm$ 3,78	70,44 $\pm$ 9,34
			<b>22,047/0,000*</b>	<b>6,790/0,000*</b>	<b>14,084/0,000*</b>	1,091/0,354*
			<b>1-3, 1-4</b>	<b>1-4, 2-4</b>	<b>1-3, 1-4, 2-4</b>	-
<b>Occupation status</b>						
Working	90	42,3	25,69 $\pm$ 6,49	27,66 $\pm$ 5,05	18,40 $\pm$ 3,94	71,74 $\pm$ 9,96
Not Working	123	57,7	18,55 $\pm$ 5,88	28,99 $\pm$ 4,22	20,40 $\pm$ 3,52	67,94 $\pm$ 6,38
			<b>8,235/0,000**</b>	<b>-2,096/0,037**</b>	<b>-3,891/0,000**</b>	<b>3,174/0,002**</b>
<b>Spouse's age</b>						
19-27 age (1)	84	39,4	19,92 $\pm$ 6,44	28,26 $\pm$ 4,39	19,52 $\pm$ 3,65	67,70 $\pm$ 6,96
28-36 age (2)	111	52,1	22,47 $\pm$ 7,44	28,55 $\pm$ 4,42	19,79 $\pm$ 3,74	70,81 $\pm$ 8,60
37 age and above (3)	18	8,5	23,72 $\pm$ 6,36	28,44 $\pm$ 6,79	18,22 $\pm$ 4,89	70,39 $\pm$ 10,60
			<b>4,132/0,017*</b>	0,092/0,913*	1,314/0,271*	<b>3,549/0,030**</b>
			<b>1-2</b>	-	-	<b>1-2</b>
<b>Spouse's age average</b>	29,28 $\pm$ 4,71 (min:19-max:45)					
<b>Spouse's education status</b>						
Primary (1)	18	8,5	17,06 $\pm$ 6,03	29,17 $\pm$ 5,46	22,11 $\pm$ 2,78	68,33 $\pm$ 6,78
Secondary (2)	32	15,0	16,94 $\pm$ 6,40	31,44 $\pm$ 3,20	22,22 $\pm$ 2,01	70,59 $\pm$ 7,40
	81	38,0	21,33 $\pm$ 6,41	27,93 $\pm$ 4,07	18,79 $\pm$ 4,14	68,05 $\pm$ 8,05

High School (3)	82	38,5	24,60±6,70	27,59±4,98	18,71±3,54	70,89±8,95
College/University (4)						
			<b>14,290/0,000*</b>	<b>6,320/0,000*</b>	<b>11,857/0,000*</b>	1,924/0,127*
			<b>1-4, 2-3, 2-4</b>	<b>2-3, 2-4</b>	<b>1-3, 1-4, 2-3, 2-4</b>	-
<b>Spouse's Occupation status</b>	204	95,8				
Working	9	4,2	21,61±7,19	28,47±4,71	19,60±3,87	69,68±8,42
Not working			20,56±3,87	27,56±1,87	18,44±2,06	66,56±3,08
			0,762/0,463**	1,286/0,221**	1,563/0,147**	<b>2,636/0,020**</b>
<b>Spouse's smoking status</b>						
Smoking	137	64,3	19,56±6,54	28,66±4,59	19,92±3,90	68,14±7,06
Nonsmoking	76	35,7	25,18±6,59	28,01±4,70	18,89±3,61	72,09±9,66
			<b>-5,990/0,000**</b>	0,972/0,332**	1,885/0,061**	<b>-3,132/0,002**</b>
<b>Consanguineous marriage</b>						
Yes	39	18,3	17,51±4,76	29,18±3,97	20,97±2,93	67,67±3,84
No	174	81,7	22,48±7,20	28,26±4,76	19,24±3,93	69,97±8,93
			<b>-5,288/0,000*</b>	1,123/0,263*	<b>3,125/0,003*</b>	<b>-2,518/0,013**</b>
<b>Type of Family</b>						
Nuclear	165	77,5	21,88±7,48	28,60±4,70	19,62±3,95	70,10±8,93
Extended	48	22,5	20,48±5,39	27,83±4,36	19,33±3,35	67,65±5,14
			1,445/0,152**	1,009/0,314**	0,496/0,621**	<b>2,415/0,017**</b>
<b>Perception of financial status</b>	33	15,5				
Bad (1)	114	53,5	15,70±5,72	31,00±3,87	22,00±2,22	68,70±6,28
Satisfactory (2)	66	31,0	20,66±6,15	27,90±4,78	19,37±3,77	67,93±7,60
Excellent (3)			26,08±6,48	28,05±4,34	18,65±4,07	72,77±9,40
			<b>33,523/0,000*</b>	<b>6,349/0,002*</b>	<b>9,414/0,000*</b>	<b>7,819/0,001**</b>
			<b>1-2, 2-3, 1-3</b>	<b>1-2, 1-3</b>	<b>1-2, 1-3</b>	<b>1-3, 2-3</b>
<b>Place of Residence</b>						
City	119	55,9	23,74±7,29	27,80±5,04	18,82±4,15	70,35±9,54
District	67	31,5	18,57±6,03	29,51±3,95	20,67±2,91	68,75±6,92
Countryside	27	12,6	19,44±5,04	28,52±3,87	20,04±3,64	68,00±4,23
			<b>14,450/0,000*</b>	2,979/0,053*	<b>5,524/0,005*</b>	1,351/0,162**
			<b>1-2, 1-3</b>	-	<b>1-2</b>	-
<b>Marriage duration</b>						
1-3 years	163	76,5	21,11±7,04	28,60±4,53	19,60±3,95	69,30±8,33
4-6 years	32	15,0	22,94±7,20	28,03±4,80	19,84±2,98	70,81±8,38
7 year and above	18	8,5	23,28±6,99	27,61±5,32	18,67±4,01	69,56±7,92
			1,470/0,232*	0,501/0,607*	0,583/0,559*	0,443/0,643**
<b>Average of marriage duration</b>			2,79±2,63 year (min:1 – max:17)			
<b>Marriage age</b>						
15-20 age (1)	56	26,3	19,00±6,68	28,61±4,18	20,32±3,22	67,93±6,56
21-26 age (2)	108	50,7	21,69±6,42	28,31±4,41	19,46±3,92	67,45±8,52
27 age and above (3)	49	23,0	24,24±7,94	28,49±5,59	18,88±4,15	71,61±9,19
			<b>7,649/0,001*</b>	0,083/0,920*	1,942/0,146*	2,637/0,074**
			<b>1-2, 1-3</b>	-	-	-
<b>Average of marriage age</b>			23,69±4,19 age (min:15 – max:41)			
<b>Spous' Marriage age</b>						
17-22 age (1)	20	9,4	19,50±5,82	27,30±3,75	19,20±3,31	66,00±4,51
23-28 age (2)	142	66,7	21,13±7,14	28,39±4,66	19,75±3,78	69,27±8,32
29 age and above (3)	51	23,9	23,59±7,02	28,98±4,83	19,14±4,14	71,71±8,83
			<b>3,263/0,040*</b>			
			<b>1-3</b>	0,961/0,384*	0,579/0,561*	<b>3,732/0,025**</b>
				-	-	<b>1-3</b>
<b>Average of spouse' marriage age</b>			26,49±3,57 age (min:17 – max:37)			
<b>Contraception</b>						
Yes	140	65,7	21,75±7,87	28,48±4,75	19,99±3,79	70,21±8,60
No	73	34,3	21,22±5,26	28,33±4,41	18,73±3,76	68,27±7,53
			0,585/0,559**	0,224/0,823**	<b>2,305/0,022**</b>	1,628/0,105**

Contraception method						
Pill (1)	25	11,7	26,96±5,37	25,32±4,43	17,08±3,66	69,36±10,22
Intrauterine device (2)	44	20,7	18,16±8,15	30,64±4,06	22,27±1,95	71,07±8,46
Condom (3)	43	20,2	25,14±6,46	27,02±4,37	18,42±3,98	70,58±9,16
Injection(4)	5	2,3	19,20±7,98	29,20±4,91	19,80±2,77	68,20±6,18
Withdrawal (5)	23	10,8	17,17±6,06	30,35±4,42	21,74±3,01	69,26±6,48
Nonuse (6)	73	34,3	21,22±5,26	28,33±4,41	18,73±3,76	68,27±7,53
			<b>11,224/0,000*</b>	<b>6,649/0,000*</b>	<b>11,935/0,000*</b>	<b>0,806/0,547*</b>
			<b>1-6, 3-6, 1-2</b>	<b>1-6, 1-2, 2-3</b>	<b>2-6, 5-6, 1-2</b>	<b>-</b>
<b>TOTAL</b>	<b>213</b>	<b>100,0</b>				

\*One-Way Anova, \*\*Independent Sample t test, AFCS: Attitudes to Fertility and Childbearing Scale

According to the nulliparous women's AFCS sub-scale of "Hindrance at present", it was determined that hindrance at present score average of women is higher whose specifications are 35 years and above, university graduated, working, spouse's age 37 years and above, spouse's education status university, working spouse, nonsmoking spouse, no consanguineous marriage, nuclear family type, excellent financial status, living in the city, married for 7 years or more, marriage age 27 years and above, spouses age 29 years and above, using contraception, using pills as contraception method. According to the comparison between hindrance at present sub-scale and the variables; it was determined that there was a significant difference ( $p < 0.05$ ) between specification of age, education status, Occupation status, spouse's age, spouse's education status, spouse's smoking status, consanguineous marriage, financial status, place of residence, marriage age, spouse's marriage age, contraception method and the current obstacle score averages (Table 2).

With respect to the Nulliparous women's AFCS sub-scale of "Importance for future", it was determined that the importance in the future score average of women is higher whose specifications are age between 27-34 years, primary school graduate, not working, spouse's age between 28-36, spouse's education status secondary school, working spouse, smoking spouse, consanguineous marriage, nuclear family type, bad financial status, living in district, marriage duration 1-3 years, marriage age 15-20, spouse's marriage age 29 years and above, using contraception, using contraception method of intrauterine device .

According to the comparison made between the sub-scale of "Importance for future" and the variables, it was determined that there was a significant difference ( $p < 0.05$ ) between the education status, occupation status, spouse's education status, financial status, the contraception

method used and importance in the future score averages (Table 2).

From Nulliparous women's AFCS the sub-scale of "Female identity", it was determined that Female identity score average of nulliparous women is higher whose specification of age between 19-26, primary school graduates, not working, spouse's age between 28-36, spouse' education status secondary education, working spouse, smoking spouse, consanguineous marriage, nuclear family type, bad financial status, living in a district, marriage duration 4-6 years, marriage age 23-28 years, using contraception, using contraception method of intrauterine device.

According to the comparison made between the sub-scale of female identity and the variables, it was determined that there was a significant difference ( $p < 0.05$ ) between age, education status, Occupation status, spouse's educational status, consanguineous marriage status, income level, place of residence, using contraception, using type of contraception and Female identity mean score (Table 2). In regards to the Nulliparous women's AFCS total score; it was determined that the women's mean total score of the scale was higher whose specifications of age between 27-34, university graduates, working, spouse's age between 28-36, spouse's education status university graduates, working spouse, spouse non-smoking, no consanguineous marriage, nuclear family type, excellent financial status, living in city, marriage duration 4-6 years, marriage age 27 years and above, spouse's marriage age 29 years and above, using contraception, using contraception method of intrauterine device . In reference to the comparison between the scale total score average and the variables, there was a significant difference between age, occupation status, spouse's age, spouse's occupation status, spouse's smoking status consanguineous marriage, family type, financial status, spouse's age at marriage, and scale total score averages. ( $p < 0.05$ ) was determined (Table 2).

**Table 3: The Interaction between the Total Score of AFCS and Independent Variables**

Independent Variables	B	Std.Error	p	95% CI	
				Lower	Upper
Age	<b>-3,231</b>	<b>1,222</b>	<b>0,008</b>	<b>-0,807</b>	<b>0,969</b>
Occupation status	-0,616	1,544	0,690	-3,660	2,428
Spouse's Age	0,229	0,311	0,463	-0,384	0,842
Spouse's Occupation status	-2,213	2,993	0,460	-8,115	3,688
Spouse's Smoking Status	<b>3,128</b>	<b>1,313</b>	<b>0,018</b>	<b>0,539</b>	<b>5,717</b>
Consanguineous marriage	-0,465	1,637	0,777	-3,694	2,764
Type of Family	-0,485	1,701	0,763	-3,421	2,709
Financial status	0,960	1,018	0,347	-1,046	2,967
Spouse's Marriage age	0,345	0,279	0,217	-0,204	0,895
R= 0,341	R <sup>2</sup> = 0,117	F=2,975	<b>p=0,002</b>		

It was determined that these variables in the model created according to the multiple linear regression analysis performed with the variables that are thought to influence the total score of the AFCS have an effect on fertility and childbearing in nulliparous women ( $p=0.002$ ;  $p<0.05$ ). Considering the significance tests of the regression coefficients, age and spouse's smoking status were found to be significant predictors of fertility and childbearing ( $p<0.05$ ) (Table 3).

## DISCUSSION

One of the most important choices for couples is the decision to become a parent. In the literature, it has been stated that the first baby is a very important factor for couples in fertility and reproductive decisions<sup>[19]</sup>. The reason for this is that the roles of womanhood and motherhood are complementary to each other, especially in patriarchal families<sup>[20]</sup>. This research was conducted to determine the attitudes of nulliparous women to fertility and childbearing.

In our study, it was determined that the total scores of the nulliparous women on the AFCS were above the average. In addition, when the sub-dimensions of the scale were examined, it was determined that the sub-dimensions of hindrance at present, importance for future and femininity identity were above the average. When the scale scores are evaluated, it can be said that women tend to fertility and childbearing. In a study conducted in Turkey, stated that women have a desire to have four or more children<sup>[21]</sup>. In the study conducted with Swedish women, it was determined that there is a perception of having children as an aspect of social identity<sup>[19]</sup>. This study supports our literature study and shows that the role of womanhood is associated with motherhood in Turkish societies as well as in other societies. The common point of the

studies is the excess of individuals who are married and have partners. In a further study, it was determined that women with a partner had high mean scores in the "importance for future" and "female identity" sub-dimensions<sup>[16]</sup>.

While women may think that having children at a younger age is more ideal, there is a tendency to postpone childbearing. In a study conducted by Lampic and fri. (2006), on university students, it was determined that 28 years for women and 30 years for men are the ideal age to have a first child<sup>[22]</sup>. A similar result was obtained in our study, and the mean age of nulliparous women was  $26.51\pm 5.19$  years. This result shows that similar attitudes exist not only in our country but also in different countries of the world. Likewise, in another study conducted by Tough and fri., (2007) on men and women who do not have children, it was stated that 47.8% of men and 44.5% of women pointed to the ideal parenthood age range of 25-29 years<sup>[23]</sup>.

It was determined that the variables in the model created according to the multiple linear regression analysis performed with the variables that were thought to influence the total score of the AFCS had an effect on fertility and childbearing in nulliparous women. Considering the significance values of the regression coefficients, it is important to draw attention to this issue that age and spouse's smoking status, which are independent variables, were found to be significant predictors of fertility and childbearing. At the same time, when the scale sub-dimensions of "hindrance at present", "importance for future" and "female identity" were examined, it was determined that there was a significant relationship between sociodemographic variables such as age, marriage year, educational status and the sub-scale mean scores. However, it was determined that there was no significant

difference between the use of contraception method with the hindrance at present and importance in the future sub-scales, but only exist with the female identity sub-scale. This is thought to be since women use contraception methods as a symbol of femininity. In our study the comparison of the method of contraception used and the total score averages of the scale, it was determined that the highest average score was found in those who used the intrauterine device and the lowest score average was in the injection users. According to this result, it is seen that women's attitudes to childbearing are high even if they use contraceptive intrauterine devices.

In traditional societies with low education levels, the marriage age declines, the use of contraceptives decreases, and the number of births increases [21,24]. Since the distribution of the participants in our study in terms of education status is similar, it is thought that the difference between the use of contraception method is not significant. When the studies in the literature are examined, it is stated that as the education increases, the tendency of women to fertility and childbearing decreases. In addition, sociodemographic data (age, occupation status, marriage duration, etc.) are stated as factors affecting women's attitudes to fertility and childbearing [16,21,25,26]. According to our study results supported by the literature, considering that sociodemographic characteristics and financial status are factors in women's attitudes to fertility and childbearing, it can be said that the reasons for postponing motherhood, which is seen as a feminine role, may be individual diversity.

## CONCLUSION AND RECOMMENDATIONS

It was determined that the Nullipara's total and sub-scale scores of the AFCS were above the average. In the analyzes made, it was determined that sociodemographic characteristics influenced fertility and childbearing. It is noteworthy that age and spouse's smoking status, which are independent variables, were found to be significant predictors of fertility and childbearing, and that there was a significant difference between the usage of contraception and the mean scores of the sub-dimensions of "hindrance at present", "importance for future" and "female identity".

In this manner, it is very important for women to have positive attitudes to fertility and childbearing in terms of pregnancy planning in preconceptionally period. Today for patriarchal societies, it is important to determine the attitudes of women to fertility and childbearing, since the roles of

womanhood and motherhood are matched. The fact that nulliparous women's attitudes to fertility and childbearing are affected by many factors such as age, occupation status, spouse's age shows that there are many variables that should be considered during the evaluation of nulliparous women by midwives. In this context, women's attitudes toward fertility and childbearing will become more important in the future, considering the decreasing population growth. However, women's attitudes toward fertility and childbearing should be considered together with their spouses. Therefore, there is a need for more comprehensive studies involving spouses.

## Conflict of Interest

There is no conflict of interest.

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## Authorship Contribution

MHA, HÖ, DÇ; opinion/concept, design, supervision, DÇ: analysis. MHA, HÖ, DÇ; comment, writing, critical review. MHA, HÖ; resources, collecting data, literature search.

## References

1. Doepke M, Sorrenti G, Zilibotti F. The economics of parenting. *Annual Review of Economics* 2019; 11(1): 55–84. <https://doi.org/10.1146/annurev-economics-080218-030156>
2. Vignoli D, Bazzani G, Guetto R, Minello A, Pirani E. Uncertainty and narratives of the future: a theoretical framework for contemporary fertility. In Schoen R (Ed.), *Analyzing Contemporary Fertility. The Springer Series on Demographic Methods and Population Analysis* 2021; 51: 25–47. Springer, Cham. [https://doi.org/10.1007/978-3-030-48519-1\\_3](https://doi.org/10.1007/978-3-030-48519-1_3)
3. Sakman E. Gönüllü çocuksuzluk: Çocuk sahibi olmama kararının altında yatan faktörler ve karşılaşılan tepkiler hakkında bir derleme. *Psikoloji Çalışmaları* 2021; 41(1): 83–109. <https://doi.org/10.26650/SP2020-0105>
4. Mynarska M, Brzozowska Z. Things to gain, things to lose: perceived costs and benefits of children and intention to remain childless in Poland. *Social Inclusion* 2022;



- 10(3): 160–171.  
<https://doi.org/10.17645/SI.V10I3.5377>
5. Gezer Tuğrul Y. Toplumsal cinsiyet bağlamında kadınların annelik deneyimleri üzerine bir saha çalışması. *Toplum ve Kültür Araştırmaları Dergisi* 2019; 3: 71–90.
  6. Arslan S, Okcu G, Margirit Coşkun A, Temiz F. Kadınların gebeliği algılama durumu ve bunu etkileyen faktörler. *HSP* 2019; 6(1): 179–192.  
<https://doi.org/10.17681/hsp.432333>
  7. Zeybekoğlu Akbaş Ö, Dursun C. Toplumsal değişme sürecinde annelik serüveni: genç annelikten geç anneliğe geçiş. *Akademik Hassasiyetler* 2022; 9(20): 107–128.  
<https://orcid.org/0000-0003-0407-5774>.
  8. Alçin Şahintürk D, Çelebi AK. Doğurganlık hızını arttırmaya yönelik kamu mali teşvikleri: Avustralya, Japonya, Danimarka, Fransa, Kanada ve Rusya analizi. *Pamukkale University Journal of Social Sciences Institute* 2021; 49: 69–47.  
<https://doi.org/10.30794/pausbed.870493>
  9. TÜİK-Türkiye İstatistik Kurumu. TÜİK Haber Bülteni. In *Türkiye İstatistik Kurumu Haber Bülteni* 2022  
<https://data.tuik.gov.tr/Bulten/Index?p=Dunya-Nufus-Gunu-2022-45552>
  10. Lappegård T, Kristensen AP, Dommermuth L, Minello A, Vignoli D. The impact of narratives of the future on fertility intentions in Norway. *Journal of Marriage and Family* 2022; 84(2): 476–493.  
<https://doi.org/10.1111/JOMF.12822>
  11. Comolli CL, Vignoli D. Spreading uncertainty, shrinking birth rates: A natural experiment for Italy. *European Sociological Review* 2021; 37(4): 555–570.  
<https://doi.org/10.1093/esr/jcab001>
  12. Matysiak A, Sobotka T, Vignoli D. The great recession and fertility in Europe: A sub-national analysis. *European Journal of Population* 2021; 37(1): 29–64.  
<https://doi.org/10.1007/S10680-020-09556-Y/FIGURES/6>
  13. Vignoli D, Minello A, Bazzani G, Matera C, Rapallini C. Narratives of the future affect fertility: evidence from a laboratory experiment. *European Journal of Population* 2022; 38(1): 93–124.  
<https://doi.org/10.1007/S10680-021-09602-3/TABLES/4>
  14. Aşçı Ö, Gökdemir F. Doğurganlığa ve çocuk sahibi olmaya yönelik tutum ölçeğinin Türkçeye uyarlanması adaptation of attitudes toward fertility and childbearing scale to Turkish. *Kocaeli Med J* 2021; 10(1): 194–205.
  15. Polit, D., & Beck, C. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10th ed.). PA: Lippincott Williams & Wilkins.
  16. Söderberg M, Christensson K, Lundgren I, Hildingsson I. Women's attitudes towards fertility and childbearing – A study based on a national sample of Swedish women validating the Attitudes to Fertility and Childbearing Scale (AFCS). *Sexual & Reproductive Healthcare* 2015; 6(2): 54–58.  
<https://doi.org/10.1016/J.SRHC.2015.01.002>
  17. Ali M, Alauddin S, Farida Khatun M, Maniruzzaman M, Mohammed Shariful Islam S. Determinants of early age of mother at first birth in Bangladesh: a statistical analysis using a two-level multiple logistic regression model. *Journal of Public Health: From Theory to Practice* 2021; 29: 1081–1087.  
<https://doi.org/10.1007/s10389-020-01228-9/Published>
  18. Damar E, Bolsoy N. Doğurganlık ve çocuk doğurmaya yönelik tutum ölçeği Türkçe formunun geçerlik ve güvenilirlik çalışması. *International Anatolia Academic Online Journal Health Sciences* 2021; 7(3): 1–34.
  19. Kossakowska, K., & Söderberg, M. Psychometric properties and factor structure of the attitudes to fertility and childbearing scale (AFCS) in a sample of polish women. *Current Psychology* 2021; 40(7): 3125–3135.  
<https://doi.org/10.1007/S12144-020-01004-8/TABLES/4>
  20. Bahtiyar-Saygan B, Sakallı-Uğurlu N. Development of attitudes toward voluntary childlessness scale and its associations with ambivalent sexism in Turkey. 2019; 40(17): 2499–2527.  
<https://doi.org/10.1177/0192513X19860168>
  21. Eroğlu K, Koruk F, Koruk İ, Çelik K, Güner P, Kiliçli A. Women's reproductive behaviour and perspectives on fertility, and their modifying factors, in a Turkish province with a high fertility rate. *The European Journal of Contraception & Reproductive Health Care* 2021; 26(2): 139–147.  
<https://doi.org/10.1080/13625187.2020.1857355>

22. Lampic C, Svanberg AS, Karlstrom P-O, Tyden T. Fertility awareness, intentions concerning childbearing, and attitudes towards parenthood among female and male academics, *Hum Reprod* 2006; 21: 558-564.  
<https://doi.org/10.1093/humrep/dei367>
23. Tough S, Tofflemire K, Benzies K, Fraser-Lee N, Newburn-Cook C. Factors influencing childbearing decisions and knowledge of perinatal risks among Canadian men and women, *Mat Child Health* 2007; 11: 189-198.  
<https://doi.org/10.1007/s10995-006-0156-1>
24. Aly R, Aly M. The situation of egyptian women in childbearing and family planning and some related factors: A perspective of correspondence analysis. *Universal Journal of Public Health* 2023; 11(1): 14–26.  
<https://doi.org/10.13189/ujph.2023.110103>
25. Coutinho RZ, Golgher AB. Modelling the proximate determinants of fertility for Brazil: the advent of competing preferences. *Revista Brasileira de Estudos de População* 2018; 35(1): e0041.  
<https://doi.org/10.20947/S0102-3098A0041>
26. Lane SD, Burns RD, Fu Y, Golub R, Ivkov-Dzigurski A, Simeunović VS. Determinants of fertility intentions of the women in Bosnia and Herzegovina—An example from the Semberija Region. *Behavioral Sciences* 2023; 13(5): 417.  
<https://doi.org/10.3390/BS13050417>