

# **Research Article**

Ankara Med J, 2020;(2):298-314 // 10.5505/amj.2020.38981

# VIEWS OF TURKISH AND SYRIAN REFUGEE WOMEN WHO ARE FROM TWO DIFFERENT CULTURES ON TUBAL LIGATION

İKİ FARKLI KÜLTÜRE SAHİP OLAN TÜRK VE SURİYELİ KADINLARIN TUBAL LİGASYON HAKKINDA GÖRÜŞLERİNİN İNCELENMESİ

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Geliş Tarihi (Submitted): 16.12.2019 // Kabul Tarihi (Accepted): 31.03.2020





# Öz

Amaç: Tubal ligasyon, çiftler için en etkili ve en güvenilir aile planlaması yöntemlerinden biri olmasına rağmen, bu yöntemin kabulü toplumdan topluma değişiklik göstermekte ve bazı medikal, sosyo-ekonomik, dini ve kültürel nedenlerden dolayı kullanımı reddedilebilmektedir. Araştırma, Türk ve Suriyeli kadınların tubal ligasyon hakkında bilgi ve tutumlarını belirlemek amacıyla yapılmıştır.

Materyal ve Metot: Araştırma, Türkiye'nin güneydoğusunda bir devlet hastanesinde postpartum servisi'nde doğum yapan 420 Türk ve Suriyeli kadın ile tanımlayıcı ve kesitsel olarak yapılmıştır. Araştırmada veri toplama araçları olarak "Tanılama Formu" kullanılmıştır.

Bulgular: Türk kadınların %32.10'u, Suriyeli kadınların %46.80'ni tüplerin bağlatılmasının günah olduğunu; Türk kadınların %22.80'ni, Suriyeli kadınların %37.60'ı, tüplerin bağlatılmasının kadına aile hayatında otorite kaybettireceğini; Türk kadınların %22.80'ni, Suriyeli kadınların %43.90'nı tüplerin bağlatılmasının cinsel hayatı olumsuz etkileyeceğini; Türk kadınların %20.90'nı, Suriyeli kadınların %36.10'u tüplerin bağlatılmasının yasaklanması gerektiğini; Türk kadınların %60.40'ı, Suriyeli kadınların %45.90'nı tüplerin bağlatılmasının güvenilir bir yöntem olduğunu ve Türk kadınların %34.40'ı, Suriyeli kadınların %48.30'u bir kadının çok çocuğunun olmasının kadına toplumda güç ve statü kazandırdığını düşündükleri saptanmıştır

Sonuç: Çalışmanın sonucunda kadınların tubal ligasyon hakkında yetersiz bilgiye sahip olduğu, Suriyeli kadınların Türk kadınlarından tubal ligasyon hakkında daha fazla olumsuz tutuma sahip olduğu belirlenmiştir. Bulgularımız kültürel farklılıkların tubal ligasyona yönelik tutumları ve kabulleri üzerinde önemli etkileri olabileceğini vurgulamaktadır.

Anahtar Kelimeler: Tubal ligasyon, kadın sterilizasyonu, aile planlaması.

## Abstract

**Objectives:** Although tubal ligation (TL) is a safe and effective method of permanent contraception, women may reject it for medical, social, economic, cultural reasons. The study was conducted to determine knowledge about and attitudes toward TL among Turkish and Syrian women.

Materials and Methods: A cross-sectional, descriptive study was conducted with 420 women in the women's health unit of hospital affiliated with the Ministry of Health in southeastern Turkey. In the research, "Diagnostic Form" was used as the data collection tool.

Results: The investigation of the women's perspectives of TL demonstrated that 32.10% of the Turkish women and 46.80% of the Syrian women considered it as a sin, 22.80% of the Turkish women and 37.60% of the Syrian women thought they might lose their authority in the family life, 22.80% of the Turkish women and 43.90% of the Syrian women thought that the intervention might have a negative impact on their sexual life, 20.90% of the Turkish women and 36.10% of the Syrian women thought that TL should be banned, 60.40% of the Turkish women, 45.90% of the Syrian women believed that TL was a reliable method and 34.40% of the Turkish women and 48.30% of the Syrian women thought that having a lot of children gained them strength and status in the society (p<0.05).

**Conclusion:** Overall knowledge of women about TL was insufficient, and Syrian participants displayed more negative attitudes towards TL than Turkish participants. Our findings underscore the fact that cultural differences may have important effects on attitudes toward and acceptance of TL.

Keywords: Tubal ligation, female sterilization, family planning.



## Introduction

Migration, a concept as old as human history, has social, cultural, and physical effects on society and individuals and also affects health, including reproductive health and family planning. Migration is an important phenomenon in a woman's life since she has to adapt her needs (physical, psychological, economic and sexual) in the new place she has migrated to, her integration into the new society, the way she is welcomed by the new society, what migration has gained her and what she has left behind in the country she formerly lived.1 Migration is believed to affect refugees' knowledge and use of contraception and demands for contraceptive services.<sup>2-3</sup> Factors related to the organization of refugee camps and access to health services in the host country may affect the contraceptive practices of refugees.4 Migration can potentially affect women's biopsycho-social health, contraceptive practices, and the health of their children. Especially for women who have to migrate without choice, contraceptive practices are more complex and can be affected by many factors such as inconvenient accommodations, living in multi-person dwellings, insufficient income, lack of health insurance, and language barriers. 5 As a result of the civil war in Syria, millions of Syrians have had to migrate to neighboring countries since 2011 (Lebanon, Turkey, Jordan, etc.). Of these neighboring countries, Turkey has been most affected by the Syrian civil war. With the first migration wave in April 2011, 252 people moved to Turkey. From that date to October 2018, the number of refugees migrating into Turkey reached nearly 3.5 million.6 According to the data released by the Disaster and Emergency Management Presidency of Turkey (DEMPT). 52% of Syrians who immigrated to Turkey were women, and 24% of them were of reproductive age. Syrian refugees are a vulnerable population because they lost their homes and have limited access to basic human rights such as food and health care. Further, women refugees are more vulnerable because of their sex. Women face extra challenges such as insufficient access to reproductive health services, unintended pregnancies, unsafe childbirth, gender-based violence, and lack of information.8 The need for reproductive health services of refugee women cannot always be met because of financial and logistic reasons. In particular, in the literature, it is stated that women's access to health insurance is an important factor affecting their decisions to choose female sterilization.<sup>2</sup>

Gaziantep, one of the leading cities in Turkey in terms of its industrial and trading capacity, is among the ten cities that have received the most of immigrants from Syria. Therefore, it has an important role in determining the general characteristics of Syrian refugees. It also has crucial importance for determining the qualification of these people and their integration into Turkish society. It has also gained strategic importance since it is adjacent to the Syrian border and thus hosts refugees fleeing from the political crisis in Syria and seeking shelter in the tent city established there. Therefore, Gaziantep is of great importance for researchers aiming to investigate fertility control-related attitudes and behaviors of Turkish and Syrian women, and to compare cultural differences between them in terms of fertility control.



From 2011, when the civil unrest began in Syria, to the first quarter of 2014, Syrian women gave birth to 11,249 children in Turkey, 82.4% of them were in refugee camps, and 17.6% outside of refugee camps.<sup>7</sup> According to the United Nations report (United Nations, Department of Economic and Social Affairs, Population Division, the total fertility rate (live births per woman) was 2.12 and 3.10 in Turkey and Syria respectively between 2010 and 2015. This report also documented that the prevalence of using any family planning method was 74.2% in Turkey and 57.7% in Syria. The types and rates of the methods were as follows: female sterilization (9.5% in Turkey and 2.9% in Syria), contraceptive pills (4.6% in Turkey and 9.8% in Syria), intrauterine devices (16.9% in Turkey and 25.0% in Syria), and male condom (15.9% in Turkey and 2.3% in Syria). 10 Contraception methods, especially female sterilization, which is a modern, reliable contraception method, are even more important for Syrian and Turkish women since they have high fertility rates. All individuals, including refugee women, should be able to access contraception services as part of primary health care services. Contraception services have a positive impact on their having healthy pregnancies and births. Moreover, the use of contraception methods can be improved by education to dispel negative attitudes towards various contraception methods. 11 In order to clarify the next steps to address contraception services for Syrian women in Turkey, it is important to identify their attitudes toward contraception methods and thoughts regarding pregnancy and contraception methods. Few researchers have investigated the attitudes towards and need for contraception services among Syrian refugees' living in Turkey.<sup>3,11</sup>

Dikmen et al., found that Syrian refugee women admitted to hospitals in Turkey want to have more children despite the challenges posed by migration. The migration does not adversely affect their fertility, and they continue to have a greater number of births.3 Sunata stated that this is probably due to the fact that individuals with a refugee status believe that they can maintain their origin by increasing their fertility to compensate their loss of homeland as a result of being forced to abandon their country.<sup>12</sup> This situation shows that the importance of reproductive health and contraception services for both Turkish women and Syrian women has increased. The state of the Republic of Turkey tries to provide Syrian refugees with reproductive health services. While Syrian refugees living in the refugee camps have access to standard health care services of Turkey's government, the healthcare costs of the Syrian refugees not staying in the camps are covered by the DEMPT within the scope of the Healthcare Implementation Communique. 13

Despite improvements and advances in contraceptive methods, unintended pregnancies are still a global problem.<sup>14</sup> The world's population grows at 1.3% per year, or an annual net addition of 78 million people, reached 6 billion in 2000 and is estimated to reach 8 billion in 2025, 8.6 billion in 2030, 9.8 billion in 2050 and 11.2 billion in 2100.15 Today, women have access to many contraceptive options. However, the need for contraceptives in developing countries is not fully met, and the woman who does not use any contraceptive method is estimated to be 222 million. However, it is observed that the status of women in modern societies gradually changes with various socio-economic and demographic conditions. Although these advances have



been made in the status of women, permanent contraception may not be accepted due to sociological, cultural, and religious beliefs. This reveals the importance of sterilization for the prevention of unwanted pregnancies in countries with high fertility and for men and women who do not want more children. 14 Tubal ligation is the surgical process through ligature and partial removal of permanently closing the fallopian tubes in women.<sup>16</sup> Sterilization has become the most popular contraceptive method, and the aim in more than two-thirds of sterilization procedures performed worldwide has been contraception (one-third is for hydrosalpinx, pelvic pain, etc.).<sup>14</sup> In the United States, annual female sterilization cases increased dramatically in the 1970s, peaked with 702,000 cases in 1977, and stabilized in the 1980s and at the beginning of 1990s. 17 Since 1990, although the rate of female sterilization varies from region to region, it is still widely used in Asia, Latin America, the Caribbean, and North America. 14

Despite the fact that sterilization is a safe, effective, and increasingly popular method of contraception, women may reject it for several medical, social, economic, religious, and/or cultural reasons. 18 Fertility control and the type of contraceptive method preferred by people may differ because of different social and cultural backgrounds, beliefs, and behaviors of people. Cultural background is thought to have a major effect on an individual's attitudes, behaviors, and perspectives about contraception.<sup>19</sup> Therefore, it is important to understand the factors that motivate Turkish and Syrian women, who are from two different cultures and among whom fertility rates are high, to undergo tubal ligation. <sup>20-21</sup> For the effective counseling of tubal ligation, it should be evaluated considering the factors affecting the use of this method, such as the cultural differences.<sup>22</sup> Fertility is a complex phenomenon that is greatly influenced by cultural conditions, preferences, and family structures. Moreover, fertility is affected by the socio-economic situation and various demographic components. Thus, various socio-economic and demographic factors have a major impact on promoting family planning methods and ultimately reducing fertility. In particular, Turkey and understanding of cultural factors affecting fertility, contraceptive use is high in society, such as Syria, applied to produce programs that will increase the prevalence of contraceptive use is of great importance to all efforts. This study is thought to be important that recognizing the attitudes toward TL of the community living in Gaziantep, where the fertility rate and the rate of migration of Syrian women are high. Also, it is important to determine the region's lack of information about TL, to investigate the problems and priorities about TL, to determine the most commonly used contraceptive methods, and to organize contraception services to be provided in the region. Therefore, the purpose of this study was to contribute to the literature because it demonstrates how women of two different cultures perceive sterilization and the effect of their perception of contraception. This descriptive study was conducted to determine Turkish and Syrian women's knowledge of and attitudes towards tubal ligation.



## **Materials and Methods**

#### Study Design

This descriptive and cross-sectional study was conducted with Turkish and Syrian women who gave birth between October 2017 and February 2018 in the postpartum service of Cengiz Gökçek Maternity and Children Hospital affiliated with the Ministry of Health. Before the study, written permission from the administration of the hospital where the study was to be conducted and ethical approval from Gaziantep University Ethical Review Board (Date: 09.10.2017, No: 48) were obtained.

#### **Participants**

The sample size was calculated using the sample size determination formula for a known population (The formula:  $n=NZ^2P(1-9)/d^2(N-1)+Z^2P(1-P)$ , n= Sample size with finite population correction, N= Population size, Z = Statistic for a level of confidence, P = Expected proportion, d = Precision (in a proportion of one).<sup>23</sup> The inclusion criterion was being married, having at least one child, being literate, being able to speak Turkish, and volunteering to participate in the study. Of the 600 questionnaires administered to potential participants, 180 were returned incomplete because 45 women were illiterate, 30 did not want to participate in the study, and 105 could neither speak nor read in Turkish. The response rate was 70.0%.

#### **Procedures**

Following a review of the relevant literature, the 31-item information form was created. 13-16 We invited women to participate in the study between October 2017 and February 2018. The study team invited women to participate, were informed about the purpose of the study and told that participation was voluntary and that they could withdraw at any time. The study team obtained verbal and written consent from all women. Then, they were asked to fill in the paper and pencil questionnaires by themselves, which takes approximately 15-20 min. After the study team collected the questionnaires, the data were transferred to computer files for analysis by the study team.

#### Measures

An information form that included 31 items about the participants' socio-demographic characteristics such as age, education status, employment status, duration of the marriage, income status, place of residence, having a daughter, having a son, the total number of children, contraception method used, by whom the decision to implement contraception, having information about contraception methods, willingness to undergo tubal ligation, having husbands who want them to undergo tubal ligation, when to undergo tubal ligation, being



influenced by the people in the environment about tubal ligation and receiving information on tubal ligation was used.

## Statistical Analysis

The data were coded and entered into a database. Researchers used printed frequencies to check for outliers and to clean up the data. Then the data were exported to a software program, Statistical Package for the Social Sciences (SPSS), version 22.0, for analysis. The data were analyzed to calculate the frequency distribution of dependent and independent variables. Researchers employed the chi-square test to assess associations between the two dependent variables and the independent variables. The authors compared responses about the factors affecting the decision to use tubal ligation, identifying the resulting p-value of 0.05 as the significant level at 95% confidence interval.

## Results

The participants' mean age was 31.08 ± 7.65 (min: 18, max: 45) years. Turkish women had fewer daughters and the total number of children than Syrian women. Turkish and Syrian women were similar in terms of education status, employment status, income status, and having a son (Table 1). In addition, 69.30% of the Turkish women and 74.60% of the Syrian women did not want to undergo tubal ligation, and 74.9% of the Turkish women's husbands and 82.00% of the Syrian women's husbands did not want their wives to undergo tubal ligation (Table 2).

It was found that 32.10% of the Turkish participants and 46.80% of the Syrian participants considered TL as a sin, and 22.80% of the Turkish women and 37.60% of the Syrian women though they might lose their authority in the family. Syrian women displayed more negative attitudes towards TL in the statements that expressed; "TL is a sin" (p=0.008), "The physician has the right to make a decision of TL" (p=0.007), "TL causes women to lose their authority in the family life" (p=0.001), "TL negatively affects sexual life" (p=0.001), "TL affects marriage negatively" (p=0.001), "TL should be banned" (p=0.002), "TL is a reliable method" (p=0.005) and "TL should be performed free of charge" (p=0.001) than Turkish women. There are statistically significant differences between Turkish and Syrian women in terms of variables about TL (Table 3).

Of the participating women who did not want to undergo tubal ligation, 45.70% were in the 18-28 age group, 50.30% were primary school graduates, 88.40% were unemployed, 39.40% had married for five or fewer years and 97.70% had husbands who did not want them to undergo tubal ligation. It was found that younger, less educated, or married for five or fewer years, or had husbands women displayed more negative attitudes towards TL. It was found that there are statistically significant differences between Turkish and Syrian women



who did not want to undergo TL in terms of the following variables: age groups (p=0.001), length of marriage (p=0.001), the region of residence (p=0.021), who should decide family planning (p=0.001) and the number of children (p=0.001) (Table 4).

**Table 1.** Distribution of Socio-Demographic-Obstetric Characteristics of Turkish and Syrian Women (n=420)

VARIABLES	woı	kish men 215)		women 205)			X²	P
	n	%	n	%	n	%		İ
Age groups (years)								
18-28	102	47.40	73	35.60	175	41.70		
29-39	88	40.90	77	37.60	165	39.30	16.560	0.001*
≥40	25	11.70	55	26.80	80	19.00		
<b>Education Status</b>								
Primary school	108	50.20	99	48.30	207	49.30		
Middle school	53	24.70	60	29.30	113	26.90	2262	0.500
High school	37	17.20	27	13.20	64	15.20	2.262	0.520
University /College	17	7.90	19	9.20	36	8.60	1	
Employment status								
Employed	25	11.60	25	12.20	50	11.90	0.000	0.050
Not employed	180	88.40	180	87.80	370	88.10	0.032	0.858
Duration of marriage (years)								
1-5	88	40.90	65	31.70	153	36.40		0.001*
6-11	54	25.20	47	22.90	101	24.00	1	
12-17	42	19.50	28	13.70	70	16.70	18.557	
≥18	31	14.40	65	31.70	96	22.90		
Income status	•		•			•		
Sufficient	24	11.20	23	11.20	47	11.20		
Partially sufficient	126	58.60	106	51.70	232	55.20	2.367	0.306
Not sufficient	65	30.20	76	37.10	141	33.60	1	
Place of residence								
City	132	61.40	95	46.30	227	54.00		
Town	48	22.30	59	28.80	107	25.50	9.906	0.007*
Village	35	16.30	51	24.90	86	20.50	1	
Having a daughter		•	•	1				
Yes	176	81.90	183	89.30	359	85.50	4.620	0.031*
No	39	18.10	22	10.70	61	14.50	4.639	
Having a son								
Yes	159	74.00	164	80.00	323	76.90	2160	0.140
No	55	26.00	41	20.00	97	23.10	2.160	0.142
Total number of children								
1	58	27.00	39	19.00	97	23.10		
2	56	26.00	41	20.00	97	23.10	13.959	0.003*
3	48	22.30	40	19.50	88	21.00		
≥4	53	24.70	85	41.50	138	32.90		

<sup>\*</sup>p<0,05



Table 2. Distribution of Information Related to Some Variables of Turkish and Syrian Women (n=420)

VARIABLES	Turkish (n=215)		Syrian (n=205)		Total		X <sup>2</sup>	р		
	n	%	n	%	n	%				
Family planning metho	od used									
IUD	36	16.80	32	15.60	68	16.10		0.095		
Condom	38	17.70	30	14.60	68	16.20				
Pill	37	17.20	58	28.30	95	22.60	12.180			
Withdrawal	33	15.40	26	12.70	59	14.10				
Not use	71	16.90	59	28.80	130	31.00				
By whom the decision to implement a contraception method should be made										
Women only	55	25.60	51	24.90	106	25.20				
Men only	19	8.80	42	20.50	61	14.50	11.916	0.003*		
Together	141	65.60	112	54.60	253	60.20				
Having information about contraception methods										
Yes	157	73.00	117	57.10	274	65.20	11 772	0.001*		
No	58	27.00	88	49.90	143	34.80	11.772			
Willingness to undergo	o tubal lig	ation								
Yes	66	30.70	52	25.40	118	28.10		0.224		
No	149	69.30	153	74.60	302	71.90	1.477			
Having husbands who	want thei	n to under	go tubal li	gation		•				
Yes	54	25.10	37	18.00	91	21.70	2.000	0.079		
No	161	74.90	168	82.00	329	78.30	3.088			
When to undergo tuba	lligation	*								
Never	59	27.40	94	22.40	153	36.40				
If there are enough number of children	102	47.40	67	32.70	169	40.20		-		
If there is a maternal risk	57	26.50	38	18.50	95	22.60	-			
No economic power to care for children	36	16.70	29	14.10	65	15.50				
If the husband wants	7	3.30	11	5.40	18	4.30				
Being influenced by the people in the environment about tubal ligation										
Yes	68	31.60	62	30.20	130	31.00	0.094	0.759		
No	147	68.40	143	69.80	290	69.00	0.074			
Receiving information on tubal ligation										
Yes	92	42.80	93	45.40	185	44.00	0.282	0.595		
No	123	57.20	112	54.60	235	56.00				
in<0.05										

<sup>\*</sup>p<0,05

<sup>&</sup>lt;sup>a</sup> Statistical evaluation was not been made because more than one option is selected.



**Table 3.** Distribution of Opinions of Turkish and Syrian Women Related to Tubal Ligation Propositions (n=420)

OPINIONS	Turkish (n=215)		Syrian (n=205)		Total		X <sup>2</sup>	P
	n	%	n	%	n	%		_
Tubal ligation is a sin								
Agree	69	32.10	96	46.80	165	39.30	9.616	
Disagree	101	47.00	77	37.60	178	42.40		0.008*
No opinion	45	20.90	32	15.60	77	18.30		
Tubal ligation is a difficult						_	-	
Agree	123	57.20	114	55.60	237	56.40		
Disagree	51	23.70	58	28.30	109	26.00	1.419	0.492
No opinion	41	19.10	33	16.10	74	17.60		
The doctor has the right to								
Agree	107	49.80	73	35.60	180	42.90		0.007*
Disagree	87	40.50	114	55.60	201	47.90	10.647	
No opinion	21	9.70	18	8.80	39	9.20		
Women lose their authorit								
Agree	49	22.80	77	37.60	126	30.00		
Disagree	128	59.50	89	43.40	217	51.70	13.014	0.001*
No opinion	38	17.70	39	19.00	77	18.30		<u> </u>
Tubal ligation completely					100=			-
Agree	166	77.20	161	78.50	327	77.90		0.00
Disagree	35	16.30	29	14.10	64	15.20	0.436	0.804
No opinion	14	6.50	15	7.40	29	6.90		
Tubal ligation adversely at			Las	1	1.00	1 00 10		
Agree	49	22.80	90	43.90	139	33.10		0.001*
Disagree	118	54.90	83	40.50	201	47.90	21.162	
No opinion	48	22.30	32	15.60	80	19.00		
Tubal ligation adversely a				10.00	1.07	1 00 10		<u> </u>
Agree	47	21.90	88	42.90	135	32.10		0.001*
Disagree	118	54.90	86	42.00	204	48.60	21.702	
No opinion	50	23.20	31	15.10	81	19.30		
Tubal ligation adversely at			0.0	44.00	1.60	10.00		1
Agree	76	35.30	92	44.90	168	40.00	4 227	0.121
Disagree	88	40.90	68 45	33.20	156	37.10	4.227	
No opinion	51	23.80		22.00	96	22.90		
Tubal ligation should not h				1	150	27.00		
Agree	77 94	35.80	82 91	40.00	159 185	37.90	1.064	0.204
Disagree	44	43.70 20.50	32	44.40 15.60	76	44.00 18.10	1.864	0.394
No opinion		20.50	32	15.60	76	18.10		
Tubal ligation should be ba	45	20.90	74	36.10	119	28.30		1
Agree Disagree	128	59.50	96	46.80	224	53.30	12.044	0.002*
-	42	19.60	35		77		12.044	
No opinion  It is every woman's right to				17.10	177	18.40		
				50.20	250	50.50		1
Agree Disagree	147 42	68.40 19.50	103 67	32.70	250 109	59.50 26.00	14.576	0.001*
No opinion	26	19.50	35	17.10	61	14.50		
Tubal ligation is a reliable		12.10	33	17.10	01	14.30		
	129	60.00	94	45.90	223	53.10		
Agree Disagree	37	17.20	60	29.30	97	23.10	10.755	0.005*
No opinion	49	22.80	51	24.90	100	23.80		0.005
Tubal ligation should be fr		22.00	] J1	24.50	100	23.00		
Agree	147	68.40	94	45.90	241	57.40		
Disagree	34	15.80	71	34.60	105	25.00	24.956	0.001*
No opinion	34	15.80	40	19.50	74	17.60		
Having many children give			1 40	17.30	/4	17.00		
Agree	74	34.40	99	48.30	173	41.20		
Disagree Disagree	103	47.90	82	40.00	185	44.00	8.925	0.012*
No opinion	38	17.70	24	11.70	62	14.80		
No opinion	30	1/./U	44	11./0	UZ	14.00		

\*p<0.05



 $\textbf{Table 4.} \ Analysis of the Socio-Demographic-Obstetric Characteristics of Turkish and Syrian Female Participants who did not Want to Undergo Tubal Ligation (n=302)$ 

VARIABLES	Turkish (n=149)		Syrian (n=153)		Total		X <sup>2</sup>	р
	n	%	n	%	n	%		
Age groups (years)								
18-28	81	54.40	57	37.30	138	45.70	18.680	
29-39	52	34.90	50	32.70	102	33.80		0.001*
≥40	16	10.70	46	30.10	62	20.50		
Education Status								
Primary school	75	50.30	77	50.30	152	50.30	1.050	
Middle school	40	26.80	46	30.10	86	28.50		0.707
High school	20	13.40	20	13.10	40	13.20	1.059	0.787
University /College	14	9.50	10	6.50	24	7.90		
Employment status								
Employed	19	12.80	16	10.50	35	11.60	0.200	0.533
Not employed	130	87.20	137	89.50	267	88.40	0.388	
<b>Duration of marriage (years</b>	)						•	
1-5	67	45.00	52	34.00	119	39.40		
6-11	37	24.80	30	19.60	67	22.20	17.032	0.001*
12-17	26	17.40	21	13.70	47	15.60		
≥18	19	12.80	50	32.70	69	22.80		
Income status							•	
Sufficient	17	11.40	12	7.80	29	9.60		0.325
Partially sufficient	86	57.70	83	54.20	169	56.00	2.247	
Not sufficient	46	30.90	58	37.90	104	34.40		
Place of residence								
City	90	60.40	68	44.40	158	52.30		0.021*
Town	32	21.50	45	29.40	77	25.50	7.729	
Village	27	18.10	40	26.10	67	22.20		
By whom the decision to imp	olement a	a contrace	ption me	thod shou	ıld be ma	nde		
Women only	44	29.50	37	24.20	81	26.80		
Men only	12	8.10	38	24.80	50	16.60	15.390	0.001*
Together	93	62.40	78	51.00	171	56.60		
Having husbands who want	them to u	ındergo tu	ıbal ligat	ion				
Yes	5	3.40	2	1.30	7	2.30	1.399	0.227
No	144	96.60	151	98.70	295	97.70		0.237
Total number of children								
1	45	30.20	33	21.60	78	25.80	18.680	0.001*
2	43	28.90	29	19.00	72	23.80		
3	34	22.80	29	19.00	63	20.90		
≥4 and above	27	18.10	62	40.40	89	29.50		
*n<0.0E				•		•		

<sup>\*</sup>p<0.05



## Discussion

It was investigated the knowledge about and attitudes toward TL among Turkish and Syrian women. Women's status of fertility varies from region to region due to social, economic, religious, and cultural reasons. In this study, some differences were found between Turkish and Syrian women with two different cultures. In the present study, it was found that Turkish women had fewer daughters and a total number of children than Syrian women. The culture of Syria is centered around Mesopotamian culture, Islamic religion, and traditional Arab culture. Fertility is considered to be surplus-value in the country, and therefore, the fertility rates are high.<sup>24</sup> Similarly, in a study conducted on Syrian migrant women, it has been found that 42.70% of women have five or more children.<sup>5</sup> In addition, the desire to have a son, which is an important effect of traditional societies, it causes women to have frequent pregnancies and continue to give birth until the son is born. Because the son is considered to be the descendant of the family, the son has a separate status from the girl child.<sup>25</sup>

In the present study, it was found that the value of women in Syria is shaped by the number of births in their society and primarily the decision of contraception is determined by the husband and the family of the husband.<sup>26</sup> Similar to the literature, in the present study, it was found that Syrian women, the response rate of the decision to implement a contraception method should belong only to men is much higher than Turkish women.

In the present study, it was determined that more than half of the participants who did not want to undergo tubal ligation was not knowledgeable about tubal ligation, which accounts for why the majority of the Turkish and Syrian women who participated in the present study did not want to undergo tubal ligation. In a study conducted in Ethiopia, it was determined that women with high knowledge of the long-term and permanent contraception methods are more likely to apply a long-lasting method than less informed women.<sup>27</sup> In the literature, studies on tubal ligation have indicated that the leading factors affecting women's decision to have surgical sterilization or their willingness to have it are age and the place of residence.<sup>28-29</sup>

In this study, it was found that older Turkish and Syrian women who did not want to undergo tubal ligation had more negative attitudes towards TL. Likewise, in other studies, the likelihood of preferring tubal ligation in individuals under 35 years of age has been reported to be lower 3-32 which suggests that their desire to end fertility is increasing as they age because they do not want to assume the responsibility for the care of a new child, and because they fear high-risk pregnancies.33 Women who work and women with high levels of education are more likely to prefer tubal ligation because they have more social relationships and they are more likely to access healthcare workers.<sup>34</sup> Similar to the literature, in the present study, it was found that the women who have low levels of education or who are unemployed want to undergo tubal ligation less. It is also expressed that the number of children is considered as an important factor affecting their acceptance to



undergo tubal ligation.<sup>35</sup>. Similarly, in the present study, it was found that while the percentage of women who did not want to undergo tubal ligation was higher among the Turkish participants having one child, this is higher among the Syrian participants with four or more children. This can be attributed to the fact that in countries such as Iran or Syria, as the number of children increases women's feelings of satisfaction, worthiness and excellence are also increases. In both urban and rural areas, children contribute to the family income by performing various jobs such as farming, construction, repair, and unskilled jobs, and especially sons are regarded as a source of economic security for older parents.<sup>36</sup> In Turkey, especially in the eastern provinces, although not as much as in the past, the same perspective is dominant. This similarity can be attributed to the fact that the geographical location of the region where the study has been conducted was close to this region, and it is among the cities where Syrians immigrate most. The vast majority of citizens of the Republic of Turkey are Muslim. In Muslim countries, one of the most important factors affecting the practice of tubal sterilization is the religious belief, which suggests that fertility is controlled by fate and that curettage and sterilization are not allowed unless medical conditions necessitate them.<sup>21</sup> In the present study, one-third of the Turkish participants and about half of the Syrian participants were found to perceive tubal ligation as a sin. Kısa et al. reported that more than half of the Muslim women in their study consider tubal ligation, and vasectomy methods as a sin, in their study.<sup>21</sup> In a study conducted in Egypt by Waheeb et al., it was found that most of the participants believe that tubal sterilization would damage the perfect structure created by God.<sup>37</sup> In a different study conducted in Germany, it is stated that 67% of the German women state that religion has no influence on their decision to choose a contraceptive method, which is supported by only 36.5% of Turkish women.<sup>19</sup>

In addition to the religious view, another important factor affecting women's knowledge of and attitudes towards the choice of contraception method is their spouses.<sup>38</sup> In the present study, almost all of the husbands of the participants who did not want to undergo tubal ligation did not want them to undergo tubal ligation. In a study conducted in the United States, women who reported a conflict between them and their partners regarding surgical sterilization are more likely to regret undergoing surgical sterilization.<sup>39</sup> Apart from this, it is reported that women can suffer sexual dysfunction because they think that they lose their reproductive ability after tubal sterilization.<sup>40</sup> In the present study, one-quarter of the Turkish women and about half of the Syrian women thought that tubal ligation would negatively affect their sexual life and marital life. In many countries where fertility rates are high and in Western countries, women reported that the intervention yielded positive results on their sexual functioning since they had no fear of becoming pregnant after sterilization.<sup>41</sup> In a study conducted in India, women who underwent tubal ligation reported that there is a positive increase in their sexual function and that they feel free and strong because there is no possibility of unintended pregnancies.<sup>41</sup> On the other hand, in their qualitative study, Kılıç et al. (2009) stated that tubal ligation have no effect on women's sexual life.<sup>42</sup> Bolourian and Ganjloo stated that in Iran, an operation performed on female sexual organs like tubal ligation might lead to a significant decrease in their sexual desire and satisfaction, and increase the probability of dyspareunia.<sup>43</sup> Cultural patterns, biological, physiological and psychological factors



are related to the level of sexual satisfaction.<sup>44</sup> The differences between results of the mentioned studies show that the relationship between tubal ligation and sexual function is a complex process affected by many factors such as misinterpretation of different cultural conditions, ethnicity, and religious codes. If health personnel are to provide an effective family planning service, they must determine their clients' attitudes towards planning, if their knowledge is not sufficient or is incorrect, they must provide them with sufficient and correct information, and if people's attitudes are clarified, efforts can be made to achieve the desired changes.

In the present study, it was found that Turkish women stated that they received more information about tubal ligation from Syrian women. Similar to our study, in a study conducted on refugees, it was found that almost all immigrant women have low rates of long-term contraception and lack of knowledge of tubal ligation.<sup>45</sup> It is thought that they cannot get information about contraception methods because of the high number of refugee women, inconvenient accommodations, insufficient income, lack of health insurance, and language barriers.<sup>5</sup>

#### Limitations

There are some limitations to the study. The research is a cross-sectional study. Therefore, it contains the limitations of cross-sectional research: This research is not free from recall biases. There is potential response bias. The participants may have intentionally given misleading answers to questions about sexuality. There is also a selection bias as the study included only the volunteers. It is only effective when it represents the entire population. The sample included 420 women of only two cultures who presented to only one hospital in Gaziantep: therefore, the results cannot be generalized. The inclusion criteria required participants to be literate and able to speak Turkish, which is another limitation of the study. The other limitation of the study is that in the literature, there are a limited number of studies on this subject; thus, we were unable to make a wide range of comparisons.

It was determined that the participants' knowledge of tubal ligation was insufficient and that the Syrian women displayed more negative attitudes towards tubal ligation than the Turkish women. Despite the many advantages of permanent contraceptives, they can be less preferred due to obstacles such as lack of information, access to services, cost, and negative attitudes. However, this process can be improved by supporting women when they are to make their decisions to undergo tubal ligation. In the light of this finding, it is recommended that in further research, strategies to overcome cultural stereotypes and false beliefs should be identified, and actual concerns such as safety, efficiency, convenience and expense about permanent contraception should be investigated.



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