



Research Article

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AWARENESS OF ADULT SYRIAN REFUGEE WOMEN ON FAMILY PLANNING METHODS

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Abstract

Objectives: Refugees remain among the most vulnerable groups regarding access to family planning services due to language barriers, lack of social support, and family planning services being left behind in crisis intervention programs. We aimed to evaluate the awareness of adult Syrian women regarding family planning.

Materials and Methods: This cross-sectional study was conducted on adult Syrian women who applied to Immigrant Health Centers (IHC) in September 2022. The sample size was calculated as 357 (95% confidence interval, 5% margin of error, and 50% frequency of not using family planning). A questionnaire designed by investigators, translated into Arabic, was applied to the participants. The Chi-Square Test was used to analyze the nominal data, and logistic regression analysis was performed.

Results: The ages of participants ranged from 18-65, with a mean of 30.9 ± 9.3 and a median of 29. The frequency of using a Family Planning Method (FPM) was 40.3% (n=146). The frequency of using FPM was found to be lower in women younger than 25 years old and primary school graduates ($p < 0.05$ for each). The age of marriage was between 13-35, and 40.3% of the women (n=146) were married under 18 years old. It was determined that 343 (94.8%) of the participants were pregnant at least once, 157 (45.8%) of the pregnant women had at least one miscarriage, and 18 of the participants (63.6%) experienced an unplanned pregnancy. Those who have information on FPM (Chi-square= 17.721; $p < 0.001$) and those who received counseling services regarding FPM (Chi-square=13.362; $p < 0.001$) were found to have a higher frequency of FPM usage.

Conclusion: We found that those with higher education levels and those who had received counseling regarding FPM had a higher frequency of using an FPM. Therefore, consultancy services should be expanded according to the education level of immigrants.

Keywords: Family planning, Syria, refugee, women, knowledge

Introduction

Family planning is essential to ensure gender equality and promote women's empowerment.¹ However, 270 million women, especially in developing countries, cannot access effective and safe family planning methods (FPM) for various reasons, including lack of access to information and services, fear of side effects, insufficient spousal-family support, and cultural-religious factors.^{2,3} Refugees remain among the most vulnerable groups regarding FPM due to language barriers, lack of social support, and family planning services being left behind in crisis management programs.^{4,5} The Syrian crisis started in 2011 and is the most important crisis of the last decades, and millions of people have been forcibly displaced. The United Nations Refugee Agency reported 6.6 million Syrian refugees worldwide, and 5.6 million stayed in countries around Syria. The three countries with the highest number of Syrian refugees were Turkey, with 64.9% (3.611.143), Lebanon, with 14.8% (825.081), and Jordan, with 12.2% (676.621).⁶

The SIHHAT project (Improving the Health Conditions of Syrians under Temporary Protection Provided by the Republic of Turkey and Improving Related Services) has been implemented by the Republic of Turkey Ministry of Health to enable Syrian immigrants living under temporary protection in Turkey to benefit from primary and secondary health services. In this context, "Immigrant Health Centers (IHC)" have been established in places where refugees live intensively, and direct health services such as family planning, vaccination, and mother and child health services are provided free of charge in these centers. In addition, Syrian health personnel trained by the Turkish Ministry of Health, bilingual (Arabic-Turkish) patient guidance staff, and support services personnel are employed to overcome the language barrier and provide efficient health services.⁷ Two IHCs, Alemdağ and Babı-Şifa, provide service in Altındağ, one of the districts in Ankara where immigrants live intensely.⁸ Our study aimed to evaluate the awareness of married adult Syrian women in terms of family planning who applied to Alemdağ and Babı-Şifa IHCs for various reasons.

Materials and Methods

This cross-sectional study was conducted on married Syrian women aged 18 and over who applied to Altındağ Alemdağ and Babı Şifa Immigrant Health Centers (IHC) in September 2022 after Ethics Committee approval (2022-08/149).

A total of 5026 married adult Syrian refugees, 3134 to Alemdağ IHC and 1892 to Bab-ı Şifa IHC, were applied in August 2022. Thus, the sample size was calculated as 357 in our study, assuming a 95% CI, 5% margin of error, and 50% frequency of not using FPM. Researchers prepared the questionnaire in Turkish and translated it into Arabic by native speakers. Then, a linguist fluent in Arabic and Turkish translated it back into Turkish. A pilot study was conducted on 10 Syrian women and was given its final form. The participants'

sociodemographic characteristics (age, gender, marital status etc.) were noted in the first part of the questionnaire. Family planning knowledge and quality (receiving family planning counseling, whether to use FPM, reasons for not using it) and pregnancy histories (first gestational age, number of children, mode of delivery, etc.) were recorded in the second part of the questionnaire.

The data obtained were evaluated using the SPSS IBM version 20.0 package program. In the descriptive findings section, categorical variables are presented as numbers and percentages, and continuous variables are presented as mean, standard deviation (SD) and median (maximum and minimum value). In addition, the Chi-Square Test was used to analyze the nominal data and logistic regression analysis was performed.

Results

The ages of the study participants ranged from 18-65, with a mean of 30.9 ± 9.3 and a median of 29. The time spent by the participants in Turkey ranged from 1 to 11 years, with a mean of 6.5 ± 2.2 and a median of 7 years. The frequency of using FPM was 40.3% (n=146). The frequency of using FPM was found to be lower in women younger than 25 years old and primary school graduates ($p < 0.05$ for each) (Table 1).

The marriage age in the study group was between 13-35, and 40.3% of women (n=146) were married before the age of 18 (Table 2). It was determined that 343 (94.8%) of the participants were pregnant at least once, 157 (45.8%) of the pregnant women had at least one miscarriage, and 218 of the participants (63.6%) experienced an unplanned pregnancy. Those with less than ten years of marriage and three/fewer living children had a lower frequency of FPM usage ($p < 0.05$ for each) (Table 3).

While all participants stated they were familiar with family planning, only 79.6% knew the concept thoroughly (n=288). In addition, 14.6% of the women indicated that they got pregnant while using FPM at some point in their lives (n=53). Those who have information on FPM (Chi-square= 17.721; $p < 0.001$) and those who received counseling services regarding FPM (Chi-square=13.362; $p < 0.001$) were found to have a higher frequency of FPM usage. Participants were most familiar with IUDs, which were the most commonly used contraceptive method among participants (Table 4). It was determined that 17.2% of the participants did not use any modern FPMs (n=25). The multivariate analyses were performed among the variables found to be significant in univariate analysis (Table 5).

Table 1. The sociodemographic characteristics and FPM usage of the participants

Characteristics	n (%)	FPM usage		Chi-Square, p
		No, n (%)	Yes, n (%)	
Age (year)				
≤25	121 (33.4)	89 (73.6)	32 (26.4)	16.866, 0.000
26-34	141 (39.0)	80 (56.7)	61 (43.3)	
≥35	100 (27.6)	47 (47.0)	53 (53.0)	
Period lived in Turkey (year)				
≤4	60 (16.6)	38 (63.3)	22 (36.7)	3.584, 0.167
5-8	248 (68.5)	152 (61.3)	96 (38.7)	
≥9	54 (14.9)	26 (48.1)	28 (51.9)	
The educational level of women				
No Graduation	49 (13.5)	32 (65.3)	17 (34.7)	10.119, 0.038
Primary school	96 (26.5)	67 (69.8)	29 (30.2)	
Middle School	90 (24.9)	47 (52.2)	43 (47.8)	
High school	78 (21.5)	47 (60.3)	31 (39.7)	
University/Graduate	49 (13.6)	23 (46.9)	26 (53.1)	
The educational level of husbands				
No graduation certificate	40 (11.0)	26 (65.0)	14 (35.0)	8.472, 0.076
Primary school	114 (31.5)	79 (69.3)	35 (30.7)	
Middle School	108 (29.8)	57 (52.8)	51 (47.2)	
High school	52 (14.4)	29 (55.8)	23 (44.2)	
University/Graduate	48 (13.3)	25 (52.1)	23 (47.9)	
Working status of women				
Employed	51 (14.1)	30 (58.8)	21 (41.2)	0.000, 1.000
Unemployed	311 (85.9)	186 (59.8)	125 (40.2)	
Working status of husbands/partners				
Employed	216 (59.7)	122 (56.5)	94 (43.5)	2.260, 0.133
Unemployed	146 (40.3)	94 (64.4)	52 (35.6)	
Level of income				
Low	107 (29.6)	70 (65.4)	37 (34.6)	2.810, 0.245
Middle	213 (58.8)	115 (55.8)	91 (44.2)	
High	42 (11.6)	26 (61.9)	16 (38.1)	
Smoking Status				
Yes	36 (10.0)	19 (52.8)	17 (47.2)	0.503, 0.478
No	326 (90.0)	197 (60.4)	129 (39.6)	
Chronic illness				
Yes	38 (10.5)	19 (50.0)	19 (50.0)	1.231, 0.267
No	324 (89.5)	197 (60.8)	127 (39.2)	
Total	362(100.0)	216 (59.7)	146 (40.3)	

Table 2. Pregnancy characteristics of the participants

Pregnancy characteristics	Median (min.-max.)	Mean±SD
Marriage age (year)	18 (13-35)	18.7±3.6
Length of marriage (year)	9 (1-51)	11.9±9.4
First gestational age (year)	19 (13-43)	19.8 ± 3.9
Total number of pregnancies (n)	4 (1-16)	3.9 ± 2.3
Number of living children (n)	3 (1-12)	3.3 ± 1.8

Table 3. Comparison of patient characteristics and FPM usage

Characteristics	n (%)	FP usage		Chi-square, p
		No, n (%)	Yes, n (%)	
Consanguineous marriage				
Yes	121 (33.4)	73 (60.3)	48 (39.7)	0.033, 0.856
No	241 (66.6)	143 (59.3)	98 (40.7)	
Age of marriage				
<18	146 (40.3)	85 (58.2)	61 (41.8)	0.214, 0.644
≥18	216 (59.7)	131 (60.6)	85 (39.4)	
Length of marriage				
≤5	89 (24.6)	65 (73.0)	24 (27.0)	12.901, 0.002
6-10	119 (32.9)	74 (62.2)	45 (37.8)	
≥11	154 (42.5)	77 (50.0)	77 (50.0)	
Age of the first gestation				
<18	84 (24.5)	46 (54.8)	38 (45.2)	0.400, 0.527
≥18	259 (75.5)	152 (58.7)	107 (41.3)	
Total number of pregnancies				
1-2	98 (28.6)	70 (71.4)	28 (28.6)	12.980, 0.002
3-4	134 (39.1)	76 (56.7)	58 (43.3)	
≥5	111 (32.4)	52 (46.8)	59 (53.2)	
Miscarriage				
No	186 (54.2)	107 (57.5)	79 (42.5)	0.007, 0.935
Yes	157 (45.8)	91 (58.0)	66 (42.0)	
Number of miscarriage				
1	90 (57.3)	54 (60.0)	36 (40.0)	1.795, 0.408
2	44 (28.0)	22 (50.0)	22 (50.0)	
Three and more	23 (14.6)	15 (65.2)	8 (34.8)	
Unplanned pregnancy				
Yes	218 (63.6)	125 (57.3)	93 (41.6)	0.037, 0.848
No	125 (36.4)	73 (58.4)	52 (41.6)	
Pregnancy while using an FPM at any time of life				
No	309 (85.4)	187 (60.5)	122 (39.5)	0.414, 0.520
Yes	53 (14.6)	29 (54.7)	24 (45.3)	
Number of live births				
0-1	62 (18.1)	43 (69.4)	19 (30.6)	11.879, 0.003
2-3	157 (45.8)	98 (62.4)	59 (37.6)	
≥4	124 (36.2)	57 (46.0)	67 (54.0)	
Number of living children				
0-1	62 (18.1)	43 (69.4)	19 (30.6)	11.879, 0.003
2-3	157 (45.8)	98 (62.4)	59 (37.6)	
≥4	124 (36.2)	57 (46.0)	67 (54.0)	
Delivery type in the first pregnancy				
Vaginal	287 (86.4)	159 (55.4)	128 (44.6)	0.485, 0.486
C-section	45 (13.6)	28 (62.2)	17 (37.8)	
Desire to have children				
Yes	236 (65.2)	155 (65.7)	81 (34.3)	10.175, 0.001
No	126 (34.8)	61 (48.4)	65 (51.6)	
Considered the ideal number of children				
≤3	124 (34.3)	73 (58.9)	51 (41.1)	0.050, 0.823
≥4	238 (65.7)	143 (60.1)	95 (39.9)	
The period between pregnancies				
≤1	13 (3.6)	4 (30.8)	9 (69.2)	4.855, 0.088
2	95 (26.2)	56 (58.9)	39 (41.1)	
≥3	254 (70.2)	156 (61.4)	98 (38.6)	
Total	362 (100.0)	216 (59.7)	146 (40.3)	

Table 4. The awareness of the participants on family planning

Variables	n (%)
Status of receiving counseling family planning services	
Yes	171 (47.2)
No	191 (52.8)
The source of the knowledge on family planning*	
Health personnel	123 (57.2)
Friend, neighbor, etc.	47 (21.9)
Internet	25 (11.6)
Written-visual media	20 (9.3)
The status of having adequate knowledge of family planning	
Yes	288 (79.6)
No	74 (20.4)
Known FPMs*	
IUD	178 (27.5)
Breast-feeding	108 (16.6)
Oral Contraceptive	98 (15.1)
Condom	84 (12.9)
Calendar method	72 (11.1)
Coitus interruptus	42 (6.5)
Tubal ligation	11 (1.7)
Other ^a	56 (8.6)
Preferred FPMs*	
IUD	71 (48.6)
Condom	26 (17.8)
ARROW	23 (15.8)
Breast-feeding	9 (6.2)
Calendar method	8 (5.5)
Retraction	8 (5.5)
Tubal ligation	1 (0.6)
Reasons for not using FPMs*	
Sexual abstinence	13 (5.8)
Religious	31 (13.8)
I don't trust their guardianship	24 (10.7)
I want children	104 (46.2)
My husband/partner doesn't want	49 (21.8)
Our elders don't want	4 (1.8)
Unplanned pregnancy status	
Yes	218 (63.6)
No	125 (36.4)
The termination of unplanned pregnancies*	
Abortion/curettage	81 (35.4)
Live birth	148 (64.6)
Decision makers regarding having children	
Elder family members	5 (1.4)
Woman	24 (6.6)
Husband	48 (13.3)
The mutual decision of the couple	285 (78.7)
Decision makers regarding FPMs	
Woman	32 (8.8)
Husband	20 (5.5)
The mutual decision of the couple	310 (85.6)
Who do you think should use the FPMs?	
Woman	132 (36.5)
Male	18 (5.0)
Both of them	212 (58.6)
Availability of the FPMs	
Free of charge from health institutions	98 (67.1)
From the pharmacy	38 (26.0)
Other**	10 (6.8)
Do you know the FPMs are free of charge in IMHs	
Yes	277 (76.5)
No	85 (23.5)
Total	362 (100.0)

* Numbers and percentages are given over the number of answers, ** Market, medical, personal care, and cosmetic product sales centers, a: Vaginal douche, spermicide, vaginal ring

Table 5. Multivariate analysis results

Variables		OR (CI 95%)
Age (year)	≤25	1
	26-34	1.5 (0.7-2.9)
	≥35	1.9 (0.8-4.7)
The educational level of women	No Graduation	1
	Primary school	0.6 (0.3-1.4)
	Middle School	1.6 (0.7-3.5)
	High school	1.2 (0.5-2.7)
	University	2.5 (0.9-6.5)
Length of marriage (year)	≤5	1
	6-10	0.8 (0.4-1.8)
	≥11	0.8 (0.3-2.1)
Total number of pregnancies	1-2	1
	3-4	2.3 (1.0-5.1)
	≥5	2.4 (0.8-6.8)
Number of live births	0-1	1
	2-3	0.6 (0.3-1.5)
	≥4	0.9 (0.3-2.7)
Number of living children	0-1	1
	2-3	0.9 (0.3-1.8)
	≥4	1.2 (0.4-3.7)
Desire to have children	Yes	1
	No	1.2 (0.2.0)

Discussion

Immigrants remain vulnerable to adequate health care due to unfavorable living conditions, low income, health insurance problems, and language barriers. Especially women, who constitute one of the disadvantaged groups, are faced with inadequate prenatal care, premature birth and miscarriage, high fertility due to insufficient use of FPMs, and many other reproductive health problems.⁹ Determining the knowledge of migrant women towards FPMs has a crucial role in reproductive health care planning. In this study, we aimed to evaluate the awareness of married adult Syrian women regarding family planning services.

We found that less than half of the refugee women (40.3%) were using any kind of FPMs, while those using modern FPMs were only one-third of the participants. In a study on Syrian refugees in Turkey, the prevalence of using FPM in married women aged 15-49 was 43%, while using modern methods was 24%. In the same study, the prevalence of using FPM was found to be 70% of married Turkish women, and using traditional methods was 21%.¹⁰ It has been reported that the frequency of using FPM among Syrian immigrants living in Turkey varies between 37.8% and 71.2%¹⁰⁻¹³, while it was between 34.5-and 53.9% among Syrian immigrants living in other countries.^{14,15} Moreover, the prevalence of using FPM was 54%, and the unmet FPM need was less than 20% before the Syrian war (2009), according to World Bank statistics.¹⁶ Thus, the frequency of FPM usage is reduced in Syrian refugee women in Turkey and other countries compared to the pre-war

period. The Syrian war, the public health catastrophe of the 21st century, has led to a disruption in health services.

Cift et al. stated that the most common reasons for Syrian refugees not using FPM are wanting more children in the future, religious reasons, and husbands' desire to have more children.¹⁷ Ontas et al. found that the most common reasons are the fear of harming their health and the husbands' desire for more children.¹² In a study conducted in Jordan, it was reported that although the awareness of Syrian refugee women about modern contraceptive methods is high, misperceptions about side effects and lack of information about access to health services remain challenging for using FPM.⁵ Moreover, Cherri et al. stated that the use of FPM by Syrian refugee women before they have children causes the husband's family to think that the bride is infertile or that the reproductive health will be harmed after the use of FPM and creates the perception that the man may need a second marriage.¹⁸

The cost, accessibility, and practicality of FPMs affect women's preferences. Sometimes, difficulties accessing these products may cause people to shift their preferences. The IUD is one of the most commonly used modern contraceptive methods worldwide due to its long-acting effect and high success rate.¹⁹ Studies on Syrian immigrants in different countries have reported comparable results.^{15,20} Like the literature, the most preferred modern method among women was the IUD, followed by the condom.

It is known that Syrian migrant women have a higher marriage rate, marry young, have high fertility rates, and have common adolescent pregnancies.^{11,21} Today, the average birth age in the Organization for Economic Cooperation and Development (OECD) countries is 30, while it is between the ages of 28-30 in Turkey.²² On the other hand, 55% of Syrian immigrant women were married before the age of 20, 38% before the age of 18, and 12% before the age of 15, and 209 out of every thousand women gave birth between the ages of 15-19.¹⁰ In forced migrations, girls are married off early by their families for economic deprivation, security problems, and fear. Early marriages are caused by the immigration-related poor conditions and the socio-cultural structure of Syrian women; thus, early pregnancies are inevitable in Syrian refugees.²³ We observed that the marriage age decreased to 13 years, and the age of first births increased to 16. By this data, the frequency of using FPM was lower in younger women.

Syrian immigrants stated that the appropriate number of children was six in the study conducted in Lebanon.¹⁸ These findings were compatible with studies conducted in Turkey.^{10,24} Suitably, the average number of children among Syrian migrant women is suggested to be between 3 and 5.^{13,15,20} Similar to these findings, we found that nearly half of the women had at least four children. In addition, 78.7% of the participants stated that the decision to have children was a joint decision of the couple, which is lower than the average of Turkish couples.¹⁰ Cherri et al. suggested that the decision was made mainly by the husband and his family, while West

et al. indicated that the majority of women make FPM decisions together as a couple; however, 27% of women stated that their husbands make the final decision.^{5,18} In Syria, a patriarchal society, the final decision is expected to be given by the man and his family.

The educational level of women and their husbands is a critical variable in fertility behavior; as the education level of women increases, the fertility rate decreases.²⁵ Therefore, education has a direct impact on the frequency of FPM usage. Similar to the different studies from Turkey, Jordan, and Lebanon, we found that Syrian refugee women with a low level of education had a lower frequency of FPM use.^{5,23,24}

Smith et al. stated that 38.5% of Syrian immigrants in Jordan received counseling regarding family planning,¹⁵ while it was 47.2% in our study. The knowledge, attitude, and behavior model suggests that the knowledge of individuals would change their attitudes positively, which would be expected to be reflected in their behavior.²⁶ By the knowledge, attitude, and behavior model, the frequency of FPM usage was higher in those who received counseling regarding family planning. Thus, providing sources to increase the knowledge of Syrian immigrants is essential to increase the frequency of using FPM.

The importance of primary health care services, where individuals can easily access health services and where cost-effective, both therapeutic and preventive health services are provided as a whole, increases even more for sensitive groups. The situations that immigrants are exposed to during migration, their pre-existing health problems, and their inability to adapt to the culture and language of the immigrant society make the current situation even more difficult. For this reason, primary health care services, which form the basis of health services, are the most effective and cheapest way to remove obstacles, especially for disadvantaged groups.

The most important limitation of this study is that causality could not be established due to its cross-sectional nature. Additionally, it cannot be generalized because it is single-centered.

In conclusion, the use of family planning services among Syrian migrant women is highly correlated with patriarchal and traditional norms and the harmful effects of war and forced migration. Furthermore, since the educational level of individuals is closely related to the frequency of FPM usage, it is essential to create a positive environment regarding family planning counseling. Therefore, developing and implementing intervention programs for Syrian immigrant women to gain a deeper understanding of reproductive health and family planning methods is crucial.

Ethical Considerations: Ethics committee permission numbered 2022-08/149 was obtained from the Health Sciences University Non-Interventional Clinical Research Ethics Committee.

Conflict of Interest: The authors declare no conflict of interest.

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