ORIGINAL RESEARCH

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The Level of Using Family Planning Methods in Refugees in Türkiye and the Factors Affecting Their Choices: A Retrospective Clinical Study

Aylin ÖNDER DİRİCAN[a], Zeynep ÖZTÜRK İNAL[a], Hasan Ali İNAL[a]

[a]Clinic of Obstetrics and Gynecology, Konya Training and Research Hospital, Konya, Türkiye

ABSTRACT Objective: To determine the family planning methods used by refugee women of reproductive age and the factors affecting their choices. **Material and Methods:** Parameters such as women age, duration of marriage, number of gravidity and birth, socioeconomic status, educational level, and the contraceptive methods preferred by foreign national women who presented to family planning (FP) outpatient clinic between January 1st, 2013, and October 31st, 2020 were documented and assesed. **Results:** A total of 721 participants were included in the study. The cumulative percentage of Syrian women who applied to FP clinic was 1.7% in 2013, and this rate was 91.1% in 2019. Syrian women made up 93.6%, Afghan women 2.5%, and Iraqi women accounted for 1.9%. The most preferred contraceptive methods were intrauterine devices (IUDs) (51.1%) and bilateral tubal ligation (BTL) (33.2%). Illiterate women preferred IUDs (56.5%) more, and women with university education preferred BTL (74.1%) (p=0.008). Women with low-income mostly preferred IUDs (54.1%), whereas high-income women mostly preferred BTL (56.9%) (p=0.001). IUDs and BTL were the most common birth control methods used by women from countries outside of Syria. **Conclusion:** Effective and appropriate contraceptive methods should be explained to immigrant women because the education and income levels of refugees affect the choice of contraception.

Keywords: Family planning method; intrauterine device; refugee; reproductive period; tubal ligation

Family planning (FP), which is considered within the scope of primary health care services, is defined as giving individuals responsible freedom regarding information, education, and tools so that they can have as many children as they want.[1] The purpose of FP is to prevent unwanted pregnancies, as well as to protect the health of mothers and children and thus prevent maternal and child deaths. The World Health Organization estimates that 222 million women worldwide are unable to meet their FP needs.[2] Everyday, 20,000 girls aged under 18 years give birth in developing countries. The international community recognizes that the right to health includes the right to control one's health and body.[3]

Studies show that FP services can reduce global maternal mortality by 32% and child mortality by almost 10%.[4,5] Maternal and infant mortality rates, which are an indicator of development, are higher in developing countries compared with developed countries. By the 1960s, many low and middle-income countries initiated formal reproductive health policies and FP programs.[6]

The conflict in Syria caused the world's largest refugee crisis and on December 1st, 2017, the United Nations High Commission for Refugees reported that the number of registered refugees exceeded 5.3 millionin neighboring countries (Türkiye, Lebanon, and Jordan).[7] Türkiye continues to host the largest number of refugees in the world.[8] By September 2020, the total number of Syrian refugees in Türkiye was about 3.6 million people (63.4% of all Syrian refugees). Forty-six percent of registered Syrian migrants are

Correspondence: Hasan Ali İNAL
Clinic of Obstetrics and Gynecology, Konya Training and Research Hospital, Konya, Türkiye
E-mail: dr.hasanaliinal@yahoo.com

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women, and the number of women aged 15-49 years is approximately 800,000. In Konya, where 5.2% of the population is Syrian immigrants, there are approximately 116,000 refugees, 46% of whom are women.[9]

Syrians were given "temporary shelter status" in Türkiye, and with a series of legal regulations, it was ensured that they would benefit from basic health and social services. According to the 2014 Temporary Protection Directive, the Syrian refugees were given Temporary Protection Identity Cards to benefit from health services. As a result, Syrian refugees benefit from general health insurance and preventive (FP services included), curative or emergency health services have been provided free of charge.[10] Also, only 6% of Syrian refugees were resettled in camps. The remaining Syrian refugees are distributed throughout the country and, to ensure their free access to health care services, necessary measures have been taken in all provinces.[7] However, after having to leave their homes and jobs to live in a different society, the limited employment opportunities and low income naturally affected the immigrants' access to healthcare.[9] In the literature, it has been reported that immigrant women have a lack of awareness about FP and an unmet need for contraception, as well as sexual violence problems. Unwanted pregnancies as a result of unmet FP needs and increasing maternal and infant health problems have become prominent. In addition, several recent studies have reported that Syrian women and girls experienced high rates of early and forced marriages, and had more difficulty in accessing FP services.[11-13] Early marriage rates among Syrian girls aged 15-17 years have tripled since the civil war.[12] On the other hand, Syrian child brides, who are under extreme pressure to prove their fertility, reportedly have false beliefs that modern birth control methods cause infertility.[14]

When the available data are compared with Turkish women, sexual violence, early forced marriage, polygamy, consanguineous marriages, unwanted pregnancies, unsafe births, and maternal deaths have been shown to be higher among Syrian refugees.[15,16] Despite the mobility of the Syrian population, language/cultural barriers, difficulties in accessing services, it is important to provide FP support to migrants within the scope of reproductive health services. As reported in the literature, the reproductive health problems experienced by migrants continue. For this reason, in Konya, which is one of the provinces with a high number of Syrian refugees, we examined the perspectives of Syrian women on family planning, their choices, and the factors affecting their choices. The results can be a guide in terms of solutions to improve the reproductive health of refugee women. In this study, we aimed to determine the FP methods used by refugee women of reproductive age who presented to Meram State Hospital FP outpatient clinic and the factors affecting their choices.

MATERIAL AND METHODS

This descriptive cross-sectional study was planned at Meram State Hospital in Konya. This study was approved by the Institutional Ethics Committe of Necmettin Erbakan University Medical Faculty (date: October 15, 2021, no: 2021-3454). All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Foreign national women who presented to Meram State Hospital Gynecology and Obstetrics Clinic Family Planning Outpatient Clinic to use a contraceptive method between January 1st, 2013, and October 31st, 2020, were included in the study. Written informed consent was obtained from all participants prior to the procedure for future use. A total of 720 foreign national women who presented to the FP polyclinic and received approval in the presence of official translators were asked to complete a questionnaire including their sociodemographic and obstetric characters. In the survey, questions about their age, education level, socioeconomic status, duration of marriage, social security, pregnancies, births, abortions, and FP methods they used were asked. The questionnaire, which was developed by the researchers based on the literature, was prepared in Turkish. Women who could not speak Turkish answered the questions in the presence of an interpreter.

STATISTICAL ANALYSIS

Statistical analyses were performed using the SPSS 15.0 for Windows (SPSS, Chicago, IL, USA) software package. The data were recorded as mean±standard deviation and categorical variables were expressed as number (percentage). Differences between categorical data were evaluated using chi-square or Fisher's exact tests. Statistical significance was set with a probability of 0.05.

RESULTS

The percentage distributions according to year and the nationalities of the refugees are presented in Table 1. Accordingly, while the cumulative percentage of Syrian women who applied to the FP clinic was 1.7% in 2013, this rate was 91.1% in 2019. Syrian women made up 93.6% of the foreign nationals included in the study. Syrian women were followed by Afghan women with 2.5% and Iraqi women with 1.9%. The sociodemographic characteristics of the foreign national women who presented to the FP outpatient clinic are given in Table 2. According to the table, 87.3% of the women were in the 20-39 years age range, 60.4% were primary school graduates, and 54.7% had a low economic level. When evaluated in terms of fertility characteristics, the mean age of the women was 29.93±6.52 years, the mean length of wedding was 10.49±6.03 years, and the mean number of live children was 4.07±1.90.

TABLE 1: Distribution of refugees according to years.

Years	(n=721)	(%)
2013	12	1.7
2014	34	4.7
2015	38	5.3
2016	96	13.3
2017	174	24.1
2018	108	15.0
2019	195	27.0
2020	64	8.9
Country		
Syria	674	93.6
Afghanistan	18	2.5
Morocco	3	0.4
Georgia	2	0.3
Iraq	14	1.9
Iranian	3	0.3
Kyrgyzstan	2	0.4
Sudan	2	0.3
Togo	2	0.3

Considering the distribution of the contraceptive methods used in general, it was seen that the most preferred was an intrauterine device (IUD) (51.1%) and bilateral tubal ligation (BTL) (33.2%) (Table 3). The education level of the women participating in the study did not seem to affect the method used (p=0.008). IUDs and BTL were the most commonly used methods in women with low or no education and women with high education level (Table 4). However, increased income levels caused BTL to be preferred more. Women with low-income preferred the IUDs the most (54.1%), whereas women with high-income mostly preferred BTL (56.9%) (Table 5).

DISCUSSION

In our study, we examined the birth control methods preferred by Syrian women who came to our country during the refugee crisis caused by the conflict in Syria and the factors affecting their choice. We interviewed 720 foreign women who presented to Konya Meram Hospital FP outpatient clinic between January 2013 and October 2020 and compared their preferred birth control methods in terms of education and income levels. The most preferred methods by the participants, who had an average pregnancy number of 4.57±2.32, were IUD and BTL. The least preferred methods were depot progesterone, subcutaneous implant, and coitus interruptus (CI). Overall, the use of oral contraceptives (OC) was low (10.7%) and was not associated with education and income levels.

In different studies in the literature, it was determined that the most preferred birth control method of Turkish women was IUDs or condoms.[17,18] However, it was reported that the use of OC increased as education levels increased.[3] In the Turkiye Demographic and Health Survey, according to the Syrian immigrants' sample data, 40% of Syrian women have never received any education, and only 9% have received high school or higher education. Syrian refugees in Turkiye give birth to an average of 5.3

TABLE 2: The distribution of refugees according to the sociodemographic features.

Features	Minimum/ maximum	Mean±standard deviation	Number (n=720)	%
Age (years)	17-49	29.93 ±6.52		
Age groups (years)				
15-19			30	4.2
20-24			108	15.0
25-29			208	28.9
30-34			197	27.4
35-39			115	16.0
40-44			47	6.5
45-49			15	2.1
Education level				
Illeterate			184	25.6
Primary education			435	60.4
High school			74	10.3
University			27	3.8
Social security status				
Available			705	97.9
Non-available			15	2.1
Marital status				
Married			720	100.0
Single			-	-
Duration of marriage	0-31	10.49±6.03		
Economic status				
Lower level			397	54.7
Intermediate level			275	38.2
High level			51	7.1
Number of pregnancies	0-11	4.57±2.32		
Parity number	0-8	4.13±1.57		
Number of miscarriages	0-7	0.45±1.04		
Number of living children	0-7	4.07±1.90		
Delivery type				
Vaginal delivery			359	49.8
Cesarean section			51	7.1
Repeated cesarean section			310	43.1

children and 39% of these women have children between the ages of 15-19. It was reported that 43% of Syrian women between the ages of 15-49 years used a contraceptive method, 24% used modern and 19% used traditional methods.[19] These results are generally consistent with our findings. On the other hand, in our study, the rate of women who had not received education was found to be 25.6%. This difference may mean that foreign national women who want to benefit from FP services are more educated.

Factors affecting the use of FP methods include the sum of the individual's knowledge, attitudes, and behaviors about FP. Studies have shown that refugee women's knowledge, attitudes, and practices about FP services are insufficient.[20,21] Misconceptions about the adverse effects of contraceptive methods are common in Middle Eastern countries. Donati et al. found that 55% of 800 refugee women did not use modern methods mainly due to insufficient information and misunderstandings about adverse effects.[21]

TABLE 3: International distribution of family planning methods.

Country	CI (n=3)	IUD (n=368)	OC (n=77)	Condom (n=33)	BTL (n=239)	p value
Syria (n=674) %	3 (0.4)	342 (50.7)	77 (11.4)	31 (4.6)	221 (32.0)	>0.05
Afghanistan (n=18) %		10 (55.6)			8 (44.4)	
Morocco (n=3) %		2 (66.7)			1 (33.3)	
Georgia (n=2) %		1 (50.0)			1 (50.0)	
Iraq (n=14) %		7 (50.0)		1 (7.1)	6 (42.9)	
Iranian (n=3) %		3 (100.0)				
Kyrgyzstan (n=2) %		1 (50.0)			1 (50.0)	
Sudan (n=2) %		1 (50.0)	1 (50.0)			
Togo (n=2) %		1 (50.0)			1 (50.0)	

CI: Coitus interruptus; IUD: Intrauterine device; OC: Oral contraceptive; BTL: Bilateral tubal ligation.

TABLE 4: The distribution of the birth control methods preferred by the women with respect to education level.

Education level (n=721)	BTL (n=239)	CI (n=3)	Condom (n=33)	OCs (n=77)	IUD (n=369)	p value
Illeterate (n=184)	50 (27.2)	1 (0.5)	4 (2.2)	25 (13.6)	104 (56.5)	<0.008*
Primary school (n=436) (%)	142 (32.6)	2 (0.5)	25 (5.7)	47 (10.8)	220 (50.4)	
High school (n=74) (%)	40 (54.0)	0 (0)	3 (4.1)	4 (5.4)	27 (36.5)	
University (n=27) (%)	20 (74.1)	0 (0)	1 (3.7)	1 (3.7)	5 (18.5)	

*Statistically significant. CI: Coitus interruptus; IUD: Intrauterine device; OC: Oral contraceptive; BTL: Bilateral tubal ligation; chi-square tests (p).

TABLE 5: The distribution of birth control methods preferred by the women with respect to their socioeconomic status.

Economic status (n=721)	BTL (n=239)	CI (n=3)	Condom (n=33)	OCs (n=77)	IUD (n=369)	p value
Lower level (n=395) (%)	104 (26.4)	2 (0.5)	21 (5.3)	54 (13.7)	214 (54.1)	0.001*
Intermediate level (n=275) (%)	111 (40.4)	1 (0.4)	8 (2.8)	20 (7.3)	135 (49.1)	
High level (n=51) (%)	29 (56.9)	0 (0)	4 (7.8)	3 (5.9)	15 (29.4)	

*Statistically significant. CI: Coitus interruptus; IUD: Intrauterine device; OC: Oral contraceptive; BTL: Bilateral tubal ligation; chi-square tests (p).

Çöl et al. found that refugee women most frequently used traditional methods of birth control in Türkiye. In the same study, it was determined that IUDs were the most widely used modern method.[22] There are also studies in the literature showing that Syrian refugees use modern contraceptive methods more frequently, as in this study.[23,24] It has been shown that the modern methods that Syrian women know the most are pills, condoms, and IUDs, and the traditional method they know best is CI.[25,26]

In general, it has been shown that many factors affect the perspective of Syrian refugees towards FP methods, such as age, education level, income level, traditions and belief systems, and the use of modern methods increases as age, education, and income levels increase:[25-27] In their studies evaluating the knowledge, attitudes, and behaviors of 389 Syrian women on FP, Gümüş Şekerci et al. reported that more than half of the participants did not know what FP meant, but well-educated women aged 35 years and over preferred modern methods.[25]

In this study, Syrian women preferred modern birth control methods rather than traditional methods such as CI. This may have led to the preference for more effective methods with longer control periods due to the information provided in the FP outpatient clinic. The high rates of BTL may be due to previous repeated cesarean rates because the recurrent cesarean rate of women included in the study was 43.1%. On the other hand, considering the number of

Syrian women living in Konya, it should not be forgotten that the number of presentations to FP polyclinics is not sufficient in the success of the effective contraception.

Women's access to early and comprehensive reproductive health education and modern contraception is essential for a healthier and more sustainable future. In this sense, with the Family Planning 2020 (FP 2020) initiative of the London Family Planning Summit in 2012, it is aimed that women and adolescent girls in the 69 poorest countries of the world will use modern contraceptive methods more by 2020.[2,7] Evaluating the results of the FP 2020 initiative between 2012 and 2017, Cahill et al. explained that the use of modern contraceptives increased slightly during this period and more than 309 million women and girls of reproductive age from 69 focus countries used modern contraceptive methods.[20] As a result, it is estimated that 84 million unwanted pregnancies, 26 million unsafe abortions, and 125,000 maternal deaths were prevented from July 2016 to July 2017. According to the United Nations Educational, Scientific and Cultural Organization, the fertility rates of Syrian refugees continued to decline from 2.5 births per woman in 2010 to 2.4 in 2017. In 2010, an estimated 14.3% of women worldwide needed modern contraception. In 2019, this number was 14.2%.[27] In our study, it is seen that the number of foreign patients who presented to the FP outpatient clinic had increased over the years. This shows that awareness about FP can be gained, albeit slowly.

Another important issue is that although early marriages are common among Syrian refugees, FP needs are not met sufficiently. It was found that women who got married at a young age were four times more likely to have unmet FP needs.[12] According to the research of Amiri et al., Syrian refugee women in Jordan have difficulties in accessing sexual and reproductive health services due to the lack of reliable information, the exacerbation of early marriages due to the crisis environment, and inadequate use of FP services.[27] In Türkiye, Syrian women are faced with problems such as child marriage, adolescent pregnancies, sexual violence, and unmet needs for FP. Although free health care is provided, the rate of benefiting from these services is below the desired level. In our study, of those who presented to the FP clinic, the proportion of women aged 15-19 was only 4.2%.

Only foreign national women were included in this study, so the results can not be generalized to the whole of society. In addition, only women who presented were included in the study. We do not know the attitudes of other refugee women living in Konya towards FP and the methods they use. Conducting interviews with an interpreter made the process prolonged and detailed data collection difficult. In addition, only Syrian refugee women were included in the study and therefore their husbands' views could not be obtained.

In our study, we observed that IUDs were the most preferred birth control method among Syrian immigrant women. This can be explained by their easy and free of charge, long-term high protective efficacy, the ability for their use during breastfeeding, and rapid return of fertility when the method is abandoned. As a result, it can be said that Syrian women are around the age of 30, have an average of 4 children and after 10 years of marriage, they need an effective contraceptive method and generally prefer modern and effective methods.

Improving FP services is also an important step in long-term social change to empower women, especially in developing countries. It is indispensable for healthy generations to enable more Syrian migrant women to benefit from FP services, to support them in choosing effective and reliable contraceptive methods, and to facilitate access to modern methods. For this reason, it is important to be sensitive to cultural differences and to provide adequate information in reproductive health practices or postpartum discharge. However, it is not enough to just provide information for FP awareness affected by such multifactorial variables. More comprehensive educational models that will transform knowledge into behavior, eliminate false beliefs and attitudes, and include men should be developed.

CONCLUSION

The education level and income levels of refugees affect their choice of contraception; the most effective

and appropriate contraceptive method should be explained to immigrants.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Aylin Önder Dirican, Hasan Ali İnal, Zeynep Öztürk İnal;* ***Design:*** *Aylin Önder Dirican, Zeynep Öztürk İnal;* ***Control/Supervision:*** *Aylin Önder Dirican, Zeynep Öztürk İnal, Hasan Ali İnal;* ***Data Collection and/or Processing:*** *Aylin Önder Dirican, Zeynep Öztürk İnal;* ***Analysis and/or Interpretation:*** *Aylin Önder Dirican, Hasan Ali İnal;* ***Literature Review:*** *Aylin Önder Dirican, Zeynep Öztürk İnal;* ***Writing the Article:*** *Aylin Önder Dirican, Hasan Ali İnal;* ***Critical Review:*** *Aylin Önder Dirican, Zeynep Öztürk İnal, Hasan Ali İnal;* ***References and Fundings:*** *Zeynep Öztürk İnal, Hasan Ali İnal;* ***Materials:*** *Aylin Önder Dirican, Zeynep Öztürk İnal, Hasan Ali İnal.*

REFERENCES

1. Koblinsky MA, Tinker A, Daly P. Programming for safe motherhood: a guide to action. Health Policy Plan. 1994;9(3):252-66. [Crossref] [PubMed]
2. World Health Organization. [Cited: July 16, 2013]. Fact Sheet No. 351. Fa-mily Planning. 2013. [Link]
3. Öztürk İnal Z, İnal HA, Küçükkendirci H, Sargın Oruç A, Günenç O. The level of using family planning methods and factors that influence the preference of methods in the Konya-Meram area. J Turk Ger Gynecol Assoc. 2017;18(2):72-6. [Crossref] [PubMed] [PMC]
4. Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, Innis J. Family planning: the unfinished agenda. Lancet. 2006;368(9549):1810-27. [Crossref] [PubMed]
5. Ozturk Inal Z, Gorkem U, Inal HA. Effects of preoperative anxiety on postcesarean delivery pain and analgesic consumption: general versus spinal anesthesia. J Matern Fetal Neonatal Med. 2020;33(2):191-7. [Crossref] [PubMed]
6. United Nations High Commission for Refugees (UNHCR). 2018-2019 Regional Refugee&Resilience Plan in Response to the Syria Crisis. Available from: [Link]
7. Inal ZO, Inal HA, Kucukkendirci H, Oruc AS. Investigation of cesarean sections at Konya Training and Research Hospital Obstetrics and Gynecology Department between 2010 and 2015. Ginekol Pol. 2017;88(4):185-90. [Crossref] [PubMed]
8. Republic of Turkey General Directorate of Migration Administration (2020). Available from: [Link]
9. Republic of Turkey Prime Ministry Disaster and Emergency Management Authority (PMDEMA). (2018). Temporary Shelte rCenters Report Table. Available from: [Link]
10. Ivanova O, Rai M, Kemigisha E. A systematic review of sexual and reproductive health knowledge, experiences and access to services among refugee, migrant and displaced girls and young women in Africa. Int J Environ Res Public Health. 2018;15(8):1583. [Crossref] [PubMed] [PMC]
11. Clark CJ, Spencer RA, Khalaf IA, Gilbert L, El-Bassel N, Silverman JG, et al. The influence of family violence and child marriage on unmet need for family planning in Jordan. J Fam Plann Reprod Health Care. 2017;43(2):105-12. [Crossref] [PubMed]
12. Gavlak D. Syrians flee violence and disrupted health services to Jordan. Bull World Health Organ. 2013;91(6):394-5. [Crossref] [PubMed] [PMC]
13. Bardaweel SK, Akour AA, ALkhawaldeh A. Impediments to use of oral contraceptives among refugee women in camps, Jordan. Women Health. 2019;59(3):252-65. [Crossref] [PubMed]
14. Saleh A, Aydın S, Koçak O. A comparative study of Syrian Refugees in Turkey, Lebanon, and Jordan: Healthcare Access and Delivery. OPUS Int J SocRes. 2018;8:14. [Crossref]
15. Inal HA, Ozturk Inal Z, Alkan E. Successful conservative management of a dislocated IUD. Case Rep Obstet Gynecol. 2015;2015:130528. [Crossref] [PubMed] [PMC]
16. Col Madendag I, Eraslan Sahin M, Madendag Y, Sahin E, Demir MB, Ozdemir F, et al. The effect of immigration on adverse perinatal outcomes: analysis of experiences at a Turkish tertiary hospital. Biomed Res Int. 2019;2019:2326797. [Crossref] [PubMed] [PMC]
17. Kitapcıoğlu G, Yanıkkerem E. Manisa Doğumevinde doğum yapan kadınların doğurganlık öyküleri, aile planlaması davranışı ve doğum sonrası aile planlaması danışmanlığı [Reproductive history, family planning behaviour and postpartum counseling of the women who had delivery in Manisa Maternity and Childcare Hospital]. Ege Journal of Medicine. 2008;47(2):87-92. [Link]
18. Yıldırım G, Turaclar N, Bakır A, Özdemir L. Sivas ili ana-çocuk sağlığı merkezine başvuran kadınların aile planlaması yöntem tercihleri ve etkileyen faktörler [The factors which effect the family planning methods preferences of women applying to family planning at the mother-child health center of Sivas city]. C.Ü. Tıp Fakültesi Dergisi. 2003;25(3):99-104.
19. Türkiye 2018 Nüfus ve Sağlık Araştırması Suriyeli Göçmen Örneklemi Temel Bulgular. Yayın No: NEE-HÜ.19.05. Ankara: Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü; 2019. [Link]
20. Cahill N, Sonneveldt E, Stover J, Weinberger M, Williamson J, Wei C, et al. Modern contraceptive use, unmet need, and demand satisfied among women of reproductive age who are married or in a union in the focus countries of the Family Planning 2020 initiative: a systematic analysis using the Family Planning Estimation Tool. Lancet. 2018;391(10123):870-82. [Crossref] [PubMed] [PMC]

21. Donati S, Hamam R, Medda E. Family planning KAP survey in Gaza. Soc Sci Med. 2000;50(6):841-9. [Crossref] [PubMed]

22. Çöl M, Bilgili Aykut N, Usturalı Mut AN, Koçak C, Uzun SU, Akın A, et al. Sexual and reproductive health of Syrian refugee women in Turkey: a scoping review within the framework of the MISP objectives. Reprod Health. 2020;17(1):99. [Crossref] [PubMed] [PMC]

23. Alan Dikmen H, Cankaya S, Dereli Yilmaz S. The attitudes of refugee women in Turkey towards family planning. Public Health Nurs. 2019;36(1):45-52. [Crossref] [PubMed]

24. Karakaya E, Coskun AM, Ozerdogan N,Yakıt E. Suriyeli mülteci kadınların doğurganlık özellikleri ve etkileyen faktörler: kalitatif bir çalışma [Syrian refugee women's fertility characteristics and influencing factors: a qualitativestudy]. Journal of International Social Research. 2017;10(48):417-27. [Crossref]

25. Gümüş Şekerci Y, Aydın Yıldırım T. The knowledge, attitudes and behaviours of Syrian refugee women towards family planning: Sample of Hatay. Int J Nurs Pract. 2020;26(4):e12844. [Crossref] [PubMed]

26. Gümüs G, Kaya A, Yılmaz SG, Özdemir S, Başıbüyük M, Coşkun AM. Suriyeli mülteci kadınların üreme sağlığı sorunları [Syrian refugee women's reproductive health issues]. Journal of Women's Health Nursing. 2017;3:1-17. [Link]

27. Amiri M, El-Mowafi IM, Chahien T, Yousef H, Kobeissi LH. An overview of the sexual and reproductive health status and service delivery among Syrian refugees in Jordan, nine years since the crisis: a systematic literature review. Reprod Health. 2020;17(1):166. [Crossref] [PubMed] [PMC]