

Araştırma Makalesi–Research Paper

HOW FAMILY PLANNING SERVICES WERE AFFECTED DURING THE  
COVID-19 PANDEMIC?  
COVID-19 PANDEMİ DÖNEMİNDE AİLE PLANLAMASI HİZMETLERİ NASIL  
ETKİLENDİ?

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Özet

Bu çalışma, COVID-19 pandemisi sürecinde aile planlaması hizmetlerinin nasıl etkilendiğini belirlemek amacıyla planlanmıştır. Tanımlayıcı tipteki çalışmamız İstanbul Kadın Doğum ve Çocuk Hastalıkları Eğitim ve Araştırma Hastanesi'nde doğum sonrası servisinde yatan kadınlar ile yapılmıştır. Araştırmanın evrenini Ocak-Mart 2022 tarihleri arasında hastaneye başvuran ve araştırmaya katılmaya gönüllü olan 18-40 yaş arası cinsel yönden aktif kadınlar oluşturmuştur. Çalışma örnekleminin belirlenmesinde yapılan güç analizi sonucunda örneklem büyüklüğü 390 kadın olarak belirlenmiştir. Araştırmada kullanılan veriler yüz yüze görüşme yoluyla toplanmıştır. Çalışmamızda yaş ortalaması 30,78±5,7 yıl olan cinsel yönden aktif kadınların %79,5'inin COVID-19 pandemisi süresince Aile Planlaması hizmeti alamadığı, her beş kadından birinin modern kontraseptif malzemelere erişimde zorluk yaşadığı bulunmuş ve her dört istenmeyen gebelikten biri kürtaj ile sonuçlanmıştır. COVID-19 nedeniyle kadınların %72,8'inin sağlık kuruluşuna erişim sorunu yaşadığı, %80,3'ünün sağlık kuruluşlarının yoğun olması nedeniyle Aile Planlaması (AP) hizmeti alamadığı belirlendi. Kadınların %87,9'u sağlık kurumlarından randevu alamamış ve %25'i sağlık kurumlarında COVID-19 bulaşma riskinden korktukları için aile hekimliği hizmeti alamamıştır. Toplum temelli hemşirelik hizmetlerinde AP hizmetlerinin amacı, istenmeyen gebelikleri önlemek ve güvenli anneliği sağlamaktır. Çalışma sonucuna göre, AP hizmetlerine erişememe oranının yüksek olduğu bulunmuş, dolayısıyla COVID-19 döneminde AP hizmetlerinin kesintiye uğradığı belirlenmiştir.

**Anahtar Kelimeler:** COVID-19, Pandemi, Aile Planlaması

Abstract

This study was planned to determine how family planning services were affected during the COVID-19 pandemic. Our descriptive study was conducted with women hospitalized in the postpartum service of the Istanbul Gynaecology and Pediatrics Training and Research Hospital. The study population consisted of sexually active 390 women aged 18-40 who applied to the hospital between January and March 2022 and volunteered to participate in the study. The data used in the study were collected through face-to-face interviews. In our study, it was found that 79.5% of sexually active women with a mean age of 30.78±5.7 years could not receive family planning (FP) services during the COVID-19 pandemic, one out of every five women had difficulty accessing modern contraceptive materials, and one of every four unintended pregnancies resulted in abortion. It was determined that 72.8% of women had problems in accessing a health institution due to COVID-19, and 80.3% of them could not receive FP services due to the high density of health institutions. 87.9% of women could not get an appointment from health institutions and 25% could not get family medicine service because they were afraid of the risk of COVID-19 transmission in health institutions. According to the results of the study, it was found that the rate of inaccessibility to AP services was high, so it was determined that AP services were interrupted during the COVID-19 period.

**Keywords:** COVID-19; Family Planning; Pandemic

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## 1. INTRODUCTION

The most important criteria that determine the health level and development of a society are the indicators of women's health. A healthy woman is the basis of a healthy society. Pregnancy, childbirth, and puerperium are essential periods for women's health. Accessible, sustainable, quality sexual and reproductive health services have great importance based on protecting and improving women's health during their reproductive years. Family planning (FP) services form the basis of sexual and reproductive health services in improving women's health and ensuring safe motherhood. (Connor et al., 2020, pp. 226; Zaigham and Andersson 2020, pp. 823–829; Evcili and Demirel 2020, pp. 1-2.).

FP methods are an essential health service that contributes positively to individuals having as many children as they want and determining the number of their family members. In addition, it contributes positively to maternal health by preventing unintended pregnancies and excessive fertility and plays a role in increasing the health level of society (Avcı et al., 2021, pp. 128-138).

The COVID-19 pandemic, which started in early 2020, became a significant health problem worldwide and caused socioeconomic problems. The health field is one of the fields that COVID-19 puts the most burden on and negatively affects. The use of all resources in the health system in the struggle against the COVID-19 pandemic caused disruptions in solving the needs and problems of maintaining family planning services (Bahamondes and Makuch 2020, pp. 319-320; Riley et al. 2020, pp. 73–76).

Changes in the roles and responsibilities of health professionals and increasing workload in the struggle against the COVID-19 pandemic caused disruptions in providing family planning services. It is known that the use of FP methods decreased due to the COVID-19 pandemic worldwide (Riley et al. 2020, pp. 73–76). In the Turkey Demographic and Health Survey (TNSA) report published at the end of 2019 in our country, it was reported that the unmet need for FP, which was 6% according to 2013 TDHS data, increased to 12% according to 2018 data and 15% of births in the last five years were unintended pregnancies (HÜNEE, 2019). Due to the COVID-19 pandemic, health institutions provide FP services in some countries such as Ghana, Germany, Zimbabwe, Sri Lanka, Pakistan, El Salvador, Zambia, Sudan, Colombia, Malaysia, and Uganda; factories producing contraceptive materials had to close down (Riley et al. 2020, pp. 73–76). The insufficient number of health personnel in health institutions providing FP services and the lack of contraceptive materials interrupted FP services. The curfew, quarantine, and the inability to go to a health institution due to the fear of COVID-19 transmission in hospitals are also factors that affect access to FP services (Hussein, 2020). In a study covering European countries, it was reported that 307 clinics and public health centers were closed due to the pandemic, and there was an 80% decrease in the rate of women applying to health institutions, although all FP centers were open in Brussels and Walloon



regions of Belgium (Riley et al., 2020, pp.73–76; Yılmaz, 2020). It is estimated that there were an additional 3,600 maternal deaths in Sierra Leone during the pandemic due to disruption of health services and inadequate maternal and newborn monitoring (Riley et al., 2020, pp. 73–76).

Complications related to pregnancy and postpartum are the leading causes of morbidity and mortality in developing countries. The World Health Organization (WHO) reported that 6 out of 10 unintended pregnancies result in voluntary abortion, and 97% of unsafe miscarriages occur in developing countries (World Health Organization, 2021). In a comprehensive study covering 132 low and middle-income countries; It was determined that there is a 10% decrease in the use of birth control pills, approximately 49 million women cannot access modern contraception methods, and more than 15 million women experience unintended pregnancies, and there is a 10% increase in unhealthy miscarriages and reported that there might be an increase of 3.4 million in the number of unsafe miscarriages (Riley et al., 2020, pp. 73–76). During the COVID-19 pandemic, the unmet FP services continue to increase in our country as well as all over the world, and this causes concern for women's health. This study was conducted to submit factual data on how family planning services were affected during the COVID-19 pandemic.

## 2. METHODS

### Setting and study population

Our study was carried out at the Gynecology and Pediatrics Training and Research Hospital in Istanbul, which provides advanced health services and high patient capacity.

### Study Design

Our study was designed as a descriptive study. The study population consisted of sexually active women aged 18-40 who were hospitalized in the postpartum service of the Gynecology and Pediatrics Training and Research Hospital between January-March 2022 and volunteered to participate in the study. In order to determine the number of samples in the study, a power analysis was performed considering the rates of not being able to receive FP services during the COVID-19 pandemic and the rates of unintended pregnancy in view of the fact that the literature (Moges et al., 2020; Bekele et al., 2020; Vora et al., 2020; Hunie Asratie, 2021, pp. 461–466). Power analysis was used to calculate the research sample. According to power analysis, at 85% power and  $\alpha= 0.05$ , the sample size was 390 women. Unmarried and sexually inactive women were not included in the study. Single-center design is the limitation of this study. Therefore, it cannot be generalized to the universe.



## **Participants and Data Collection**

The data collection tool of the study is a thirty-question survey prepared by the researchers in line with the literature. It was prepared comprehensively, and it consists of three parts: the introductory information part (demographic characteristics of women), the obstetric and gynecological information part (number of pregnancies, number of miscarriages and abortions, number of unintended pregnancies, etc.), and the evaluation part of the COVID-19 family planning services (the status of receiving or not receiving family planning service, the family planning method and duration used, where he/she obtained the contraceptive material, where he/she received the family planning service and evaluation, the reason if he could not receive family planning service, the family planning method he/she knows) (Moges et al., 2020; Bekele et al., 2020; Vora et al., 2020; Hunie Asratie, 2021, pp. 461–466; Ferreira-Filho et al., 2020, 615-622; Göncü Serhatlıoğlu and Göncü, 2020, pp. 184-191). No expert opinion was received on the questions.

Before starting the study, a pilot study was carried out with seven women to scale the applicability and comprehensibility of the survey; however, pilot study data were not used in this research.

## **Statistical Analyses**

Data were collected by face-to-face data collection method. The data were evaluated with the Statistical Package for Social Sciences (SPSS) 25.0 windows program, and the statistical significance value was accepted as  $p < 0.05$  in the analysis. Arithmetic mean, frequency, standard deviation, percentage, and chi-square tests were applied in the data analysis.

## **Ethical Considerations**

Ethics Committee Approval for this research was obtained with written permission from the Zeynep Kâmil Kadın ve Çocuk Hastalıkları Research and Training Hospital Clinical Research Ethics Committee (18.12.21/ 190) and Ministry of Health Scientific Research Platform. The women participating in the study were informed that the research was planned for scientific purposes, and an informed voluntary consent form was obtained from them.

## **Research Questions:**

During the COVID-19 pandemic, FP services were excluded from priority health services. Therefore, millions of women's access to FP services was negatively affected worldwide. This study was conducted to submit factual data on how family planning services were affected during the COVID-19 pandemic. In line with this primary purpose, answers to the following questions were sought:

1. Did women receive family planning counseling during the COVID-19 pandemic?



2. Did women access contraceptive materials related to family planning during the COVID-19 pandemic?
3. Have unintended pregnancies occurred during the COVID-19 pandemic?
4. What are the reasons that women could not receive family planning counseling during the COVID-19 pandemic?

### 3. RESULTS

It was determined that the mean age of the women participating in the study was  $30.78 \pm 5.7$  years, and the mean duration of marriage was  $8.03 \pm 6.1$  years. The findings regarding the descriptive characteristics of women are shown in Table 1. It was determined that 31.0% of the women participating in the research were university graduates, 31.5% of their husbands were high school graduates, and 70.8% of women's economic status was moderate.

The findings regarding women's experiences with FP methods are shown in Table 2. It was determined that 62.6% of the women used a family planning method. Women prefer condoms, spiral, birth control pills, monthly injections, and withdrawal among the FP methods.

It was determined that 13.1% of the women had an unwanted pregnancy and 25% of the unwanted pregnancies resulted in abortion. It was determined that 36.4% of the women received counseling on FP methods in the pre-pregnancy period, and they received this counseling from the health institutions providing FP services, state hospitals, private hospitals, and their relatives who are not health professionals.

It was concluded that 82.8% of the women's husbands showed a supportive attitude towards the FP method. One out of every five women participating in the study stated that they had difficulty accessing the FP method, and it was determined that one out of every four people did not receive FP counseling because they were afraid of the risk of COVID-19 transmission. It was concluded that 79.5% of the women could not receive FP services during the COVID-19 pandemic.

**Table 1.** Descriptive characteristics of women (n=390)

<b>Variables</b>	<b>n</b>	<b>%</b>	
Education status	Primary school graduate	68	17.4
	Secondary school graduate	94	24.1
	High school graduate	107	27.4
	University graduate	121	31.0
Education status of husband	Primary school graduate	58	14.9
	Secondary school graduate	98	25.1
	High school graduate	123	31.5
	University graduate	111	28.5
Economic status	Low	58	14.9
	Middle	276	70.8
	High	56	14.4
<b>Variables</b>	<b>n</b>	<b>%</b>	
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	University graduate	111	28.5
Economic status	Low	58	14.9
	Middle	276	70.8
	High	56	14.4

**Table 2.** Women's experiences with FP (n=390)

Variables		n	%
Status of using AP method	Yes	244	62.6
	No	146	37.4
Unintended pregnancy	Yes	51	13.1
	No	339	86.9
Received counseling on FP methods in the pre-pregnancy period	Yes	142	36.4
	No	248	63.6
Husband showed a supportive attitude toward the FP method	Yes	323	82.8
	No	67	17.2
Received FP services during the COVID-19 pandemic	Yes	80	20.5
	No	310	79.5

The findings regarding the counseling experiences of women about FP methods and their awareness of the methods are shown in Table 3.

The reasons why women could not receive FP counseling during the pandemic were examined. It was seen that 80.3% of women could not get an appointment due to the intensity of the health institutions providing FP services, and 83.8% of women could not get an appointment due to the lack of health professionals. And it was determined that 72.8% of women could not get an appointment because they had problems accessing FP services because of COVID-19; 87.9% of women could not get an appointment from health institutions providing FP services due to COVID-19.

The women's knowledge on FP methods was examined. It was determined that 80.3% of women have knowledge about condom, 63.6% have knowledge about oral contraceptives, 65.9% have knowledge about the intrauterine device (IUD), 43.3% have knowledge about contraceptive injection, 12.6% have knowledge about the implant, 16.2% have knowledge about contraceptive film, 42.1% have knowledge about the morning-after pill, and 8.7% have knowledge about the diaphragm.



The findings regarding the comparison of some variables with the factors that prevent women from receiving FP services during the COVID-19 pandemic from health institutions providing FP services are shown in Table 4. There is no significant difference between the given variables; education level, husband's education level, economic status, the status of using FP method, husband's attitude towards FP methods, intensity of health institutions providing FP services in the COVID-19 pandemic in terms of receiving counseling and not receiving FP counseling from health institutions providing FP services due to lack of health professionals.

There is a significant difference between the husband's attitude towards FP methods and the inability to find an appointment in health institutions providing FP services due to COVID-19 ( $\chi^2=4.12$ ;  $p=.042$ ). It was seen that women whose husbands showed a supportive attitude towards FP methods answered "no" at a higher rate to the question regarding the inability to find an appointment in health institutions providing FP services due to COVID-19. There is a significant difference between the inability to find an appointment in health institutions providing FP services due to COVID-19 and receiving services related to FP during the COVID-19 ( $\chi^2=4.26$ ;  $p=.039$ ). It was determined that women who did not receive service during the COVID-19 answered "no" at a higher rate to the question regarding the inability to find an appointment in health institutions providing FP services due to COVID-19.

**Table 3.** Counseling experiences and awareness of women about FP methods (n=390)

<b>Variables</b>		<b>n</b>	<b>%</b>
<b>Inability status to receive FP counseling from health institutions during the pandemic</b>			
The density of health institutions providing FP services	Yes	77	19.7
	No	313	80.3
Lack of health professionals	Yes	63	16.2
	No	327	83.8
Accessing problems to health institutions providing FP services due to COVID-19	Yes	106	27.2
	No	284	72.8
Inability to find an appointment in health institutions providing FP services due to COVID-19	Yes	47	12.1
	No	343	87.9
<b>Knowledge of FP methods</b>			
Condom	Yes	313	80.3
	No	77	19.7
Oral Contraceptive	Yes	248	63.6
	No	142	36.4
Intra-Uterine Device (IUD)	Yes	257	65.9
	No	133	34.1
Contraceptive Injection	Yes	169	43.3
	No	221	56.7
Implant	Yes	49	12.6
	No	341	87.4
Contraceptive Film	Yes	63	16.2
	No	327	83.8
Morning-After Pill	Yes	164	42.1
	No	226	57.9
Diaphragm	Yes	34	8.7
	No	356	91.3

**Table 4.** Comparison of the reasons for not being able to receive counseling about FP methods during the COVID-19 and some variables (n=390)

Reasons for not being able to receive family planning counseling from health institutions providing FP services		The density of health institutions providing FP services		Lack of health professionals		Inability to find an appointment in health institutions providing FP services due to COVID-19	
		Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)
<b>Education status</b>	Primary school graduate	15 (19.5)	53 (16.9)	9 (14.3)	59 (18.0)	6 (12.8)	62 (18.1)
	Secondary school graduate	16 (20.8)	78 (24.9)	13 (20.6)	81 (24.8)	13 (27.7)	81 (23.6)
	High school graduate	18 (23.4)	89 (28.4)	24 (38.1)	83 (25.4)	15 (31.9)	92 (26.8)
	University graduate	28 (36.4)	93 (29.7)	17 (27.0)	104 (31.8)	13 (27.7)	108 (31.5)
	$\chi^2/p$	$\chi^2=2.12$ p=.540		$\chi^2=4.31$ p=.230		$\chi^2=1.53$ p=.670	
<b>Education status of husband</b>	Primary school graduate	16 (20.8)	42 (13.4)	10 (15.9)	48 (14.7)	9 (19.1)	49 (14.3)
	Secondary school graduate	15 (19.5)	83 (26.5)	18 (28.6)	80 (24.5)	13 (27.7)	85 (24.8)
	High school graduate	24 (31.2)	99 (31.6)	19 (30.2)	104 (31.8)	12 (25.5)	111 (32.4)
	University graduate	22 (28.6)	89 (28.4)	16 (25.4)	95 (29.1)	13 (27.7)	98 (28.6)
	$\chi^2/p$	$\chi^2=3.47$ p=.320		$\chi^2=.69$ p=.870		$\chi^2=1.41$ p=.700	
<b>Economic status</b>	Low	13 (16.9)	45 (14.4)	9 (14.3)	49 (15.0)	7 (14.9)	51 (14.9)
	Middle	50 (64.9)	226 (72.2)	46 (73.0)	230 (70.3)	30 (63.8)	246 (71.7)
	High	14 (18.2)	42 (13.4)	8 (12.7)	48 (14.7)	10 (21.3)	46 (13.4)
	$\chi^2/p$	$\chi^2=1.69$ p=.42		$\chi^2=.21$ p=.89		$\chi^2=2.14$ p=.342	
<b>Status of using FP method</b>	Yes	42 (54.5)	202 (64.5)	37 (58.7)	207 (63.3)	28 (59.6)	216 (63.0)
	No	35 (45.5)	111 (35.5)	26 (41.3)	120 (36.7)	19 (40.4)	127 (37.0)
	$\chi^2/p$	$\chi^2=2.63$ p=.10		$\chi^2=.472$ p=.49		$\chi^2=.20$ p=.65	
<b>Husband showed a supportive attitude towards FP method</b>	Yes	64 (83.1)	259 (82.7)	53 (84.1)	270 (82.6)	34 (72.3)	<b>289 (84.3)</b>
	No	13 (16.9)	54 (17.3)	10 (15.9)	57 (17.4)	13 (27.7)	54 (15.7)
	$\chi^2/p$	$\chi^2=.06$ p=.930		$\chi^2=.09$ p=.760		$\chi^2=4.12$ p=.0420	
<b>Received FP services during the COVID-19 pandemic</b>	Yes	21 (27.3)	59 (18.8)	9 (14.3)	71 (21.7)	15 (31.9)	65 (19.0)
	No	56 (72.7)	254 (81.2)	54 (85.7)	256 (78.3)	32 (68.1)	278 (81.0)
	$\chi^2/p$	$\chi^2=2.68$ p=.101		$\chi^2=1.78$ p=.181		$\chi^2=4.26$ p=.390	

$\chi^2$  : chi-square / p: p value



#### 4. DISCUSSION

It is known that the time that couples spend on each other and sexual intercourse increases due to the quarantine, curfew, and working from home during the COVID-19 pandemic. Inability to use the contraceptive method due to disruptions in accessing FP services during the COVID-19 pandemic causes unintended pregnancies (Ferreira-Filho et al., 2020, pp. 615-622; Göncü Serhatlıoğlu and Göncü, 2020, pp. 184-191).

In our study, we conducted with women who were sexually active, and in their fertile period, it was determined that the average age of women was 30, and the average marriage period was 8 years. In our study it was seen that one out of every four pregnancies in women during the COVID-19 pandemic was an unintended pregnancy. Similar to our study, as a result of a study conducted by Asratie on 424 women aged 20-34 in Ethiopia in 2021, it was reported that approximately half of the women experienced unintended pregnancies (Hunie Asratie, 2021, pp. 461-466).

In a study conducted by Riley et al. in 132 middle- and low-income countries, it was predicted that there was a decline in FP services compared to the pre-pandemic and that unmet FP services might cause approximately 15.5 million women's unintended pregnancies (Riley et al., 2020, pp. 73-76). In the report published by the United Nations Population Fund in 2020, it is thought that seven million women may experience unintended pregnancies due to unmet FP services in low- and middle-income countries during the COVID-19 pandemic (UNFPA, 2020). The decrease in household income in the family during the COVID-19 pandemic caused a decrease in the resources related to the health expenditures of individuals (Connor et al., 2020, pp. 226). In our study, it was determined that 70.8% of women had a medium-income level, and 14.9% had a low-income level. Also, in the literature, it was stated that unintended pregnancies tend to increase before the pandemic in studies conducted during the COVID-19 pandemic, and it was reported that the increase in the rates of mortality and morbidity in women's health is higher in countries with poor education level and economic situation (Moges et al., 2020; Bekele et al., 2020; Mmeje et al., 2020, pp. 326-327).

During the COVID-19 pandemic, it was reported that optional abortion services were removed from the list of primary health care services in some states of the United States. And optional abortion services were restricted in Turkey (UNFPA, 2020; Bayefsky et al., 2020, pp. 382). Considering that one out of every four unintended pregnancies results in abortion in our study, women may prefer abortion in unsafe environments due to the restriction of abortion services. And as a result, unsafe termination of pregnancy puts women at serious risk in terms of mortality and morbidity.

Protecting the adverse effects of unintended pregnancies on women's health is primarily possible with quality, accessible and sustainable FP services (Connor et al., 2020, pp. 226). In



the last TDHS report published in our country, it was reported that before the COVID-19 pandemic, the unmet need for FP was 12%, and 15% of births in the last five years were unintended pregnancies (HÜNEE, 2019). The high rate of FP services that were not met before the COVID-19 pandemic proves a need for studies on improving family planning services in our country. In our study, it was determined that 79.5% of women could not receive services related to FP during the COVID-19 pandemic. The high rate of not being able to receive FP services is risky for both mother and baby's health. In a study covering all European countries, it was reported that 307 clinics and public health centers were closed due to the pandemic, and there was an 80% decrease in the rate of women applying to health institutions, although all FP centers were open in Brussels and Walloon region of Belgium (Riley et al., 2020, pp. 73–76). In a study conducted by Riley et al., (2020, pp. 73–76) in 132 middle and low-income countries, it was reported that there was a 10% decrease in FP services (Riley et al., 2020, pp. 73–76).

Our study result is similar to the result that family planning needs are not met in Turkey during the COVID-19 pandemic as in other countries. (Riley et al., 2020, pp. 73–76; 12).

In our study, it was determined that one out of every five women had difficulty accessing the modern contraceptive FP method, and they bought the FP method by paying a fee on their own. Having free access to FP methods is important for the continuity of method use (Vora et al., 2020). In the report published by the United Nations Population Fund in 2020, it is predicted that approximately 47 million women will not be able to access modern contraceptive methods due to unmet FP services in low- and middle-income countries during the COVID-19 pandemic (UNFPA, 2020). In a study conducted to evaluate FP services during the COVID-19 pandemic in India, it was found that women's inability to access modern contraceptive FP methods is high. And it was reported that there is a 36% decrease in the use of injectable birth control methods, which are modern contraceptive FP methods, a 21% decrease in the use of an intrauterine device (IUD), and a 23% decrease in the use of condoms (Vora et al., 2020).

The disruptions experienced in health services during the COVID-19 pandemic adversely affected the accessibility and sustainability of FP services (Moges et al., 2020; Bekele et al., 2020; Vora et al., 2020). In the studies in the literature, the main reasons for the disruption of AP services were determined as follows: quarantine, social isolation, thinking that there is a high risk of COVID-19 transmission in health institutions, lack of contraceptive materials in health institutions due to the closure of the factories producing contraceptive materials, inability to get an appointment from health institutions providing FP services due to some changes in the roles and responsibilities of health professionals (Hunie Asratie, 2021, pp. 461–466; Ferreira-Filho et al., 2020, 615-622; Göncü Serhatlıoğlu and Göncü, 2020, pp. 184-191). In our study, it was reported that 72.8% of them had problems in accessing a health institution due to COVID-19. And it was determined that 80.3% of women could not get an appointment from health institutions due to the density of health institutions, 83.8% of them could not get an appointment due to the lack of health professionals, and 87.9% of them could not get an appointment due to COVID-19. The insufficient number of health professionals in



health institutions providing FP services in the struggle against the COVID-19 pandemic in our country and the priority of health professionals in taking part in the struggle against the COVID-19 pandemic support our study results (Zaigham and Andersson 2020, pp. 823–829; Riley et al., 2020, pp. 73–76; Vora et al., 2020).

It is a crucial step to ensure the sustainability of AP services and access to AP services to overcome the COVID-19 pandemic with the most minor damage. In order to prevent unwanted pregnancies, all women should be able to benefit from family planning services and use appropriate family planning methods.

## 5. CONCLUSION

The COVID-19 pandemic has pushed the health service capacities of countries. And FP health services were excluded from the services that should be provided first, and millions of people's access to FP services were restricted. The high rate of unmet FP services worldwide causes concerns for women's health. An emergency action plan should be developed to ensure the access and quality of FP services for possible pandemic situations such as the COVID-19 pandemic. Studies should be carried out on the access to AP services and effective use of AP services. In addition, it is recommended that midwives working in health institutions providing FP services provide online counseling to women who cannot reach FP services, and online family medicine service delivery, which has gained importance worldwide during the COVID-19 pandemic, should be organized online in our country.

### Highlights

- It was determined that 79.5% of women could not receive FP services during the COVID-19 pandemic period.
- It was determined that one out of every four unintended pregnancies resulted in abortion during the COVID-19 pandemic.
- It was determined that one out of every five women had difficulty accessing contraceptive materials during the COVID-19 pandemic.

## 6. REFERENCES

Avcı, S., Mutlu, S. & Yigit, F. (2021). The Factors Affecting of Family Planning Method Preferences of Married Womens. *Journal of Midwifery and Health Sciences*, 4(2), 128-138. Retrieved from <https://dergipark.org.tr/tr/pub/esbder/issue/64736/929665>.

Bahamondes, L., Makuch, M.Y. (2020). Family planning: an essential health activity in the pandemic of SARS-CoV-2. *The European Journal of Contraception & Reproductive Health Care*, 25:4, 319-320, DOI:10.1080/13625187.2020.1768368



Bayefsky, M. J., Bartz, D., & Watson, K. L. (2020). Abortion during the Covid-19 Pandemic - Ensuring Access to an Essential Health Service. *The New England journal of medicine*, 382(19), e47. <https://doi.org/10.1056/NEJMp2008006>

Bekele, H., Dheressa, M., Mengistie, B., Sintayehu, Y., & Fekadu, G. (2020). Unintended Pregnancy and Associated Factors among Pregnant Women Attending Antenatal Care at Bako Tibe District Public Health Facility, Oromia Region, Ethiopia. *Journal of pregnancy*, 2020, 3179193. <https://doi.org/10.1155/2020/3179193>

Connor, J., Madhavan, S., Mokashi, M., Amanuel, H., Johnson, N. R., Pace, L. E., & Bartz, D. (2020). Health risks and outcomes that disproportionately affect women during the Covid-19 pandemic: A review. *Social science & medicine* (1982), 266, 113364. <https://doi.org/10.1016/j.socscimed.2020.113364>

Evcili, F. & Demirel, G. (2020). An Evaluation on The Effects of Covid-19 Pandemic on Women's Health and Recommendations. *Turkish Journal of Science and Health*, 1(2), 1-2. Retrieved from <https://dergipark.org.tr/tr/pub/tfsd/issue/55578/753322>

Ferreira-Filho, E. S., de Melo, N. R., Sorpreso, I. C. E., Bahamondes, L., Simões, R. D. S., Soares-Júnior, J. M., & Baracat, E. C. (2020). Contraception and reproductive planning during the COVID-19 pandemic. *Expert review of clinical pharmacology*, 13(6), 615–622. <https://doi.org/10.1080/17512433.2020.1782738>

Göncü Serhatlıoğlu, S. & Göncü, N. (2020). COVID-19 and its Reflections on Family Planning Services. *Journal of Health Sciences and Research*, 2 (3), 184-191. DOI: 10.46413/boneyusbad.779111

Hacettepe University Institute of Population Studies (HÜNEE). (2019). Key Findings of Turkey Demographic and Health Survey. <http://www.openaccess.hacettepe.edu.tr:8080/xmlui/handle/11655/23356>; 2018 [accessed 07 April 2021].

Hunie Asratie M. (2021). Unintended Pregnancy During COVID-19 Pandemic Among Women Attending Antenatal Care in Northwest Ethiopia: Magnitude and Associated Factors. *Int J Womens Health*, 13:461-466 <https://doi.org/10.2147/IJWH.S304540>

Hussein J. (2020). COVID-19: What implications for sexual and reproductive health and rights globally?, *Sexual and Reproductive Health Matters*, 28:1, DOI: 10.1080/26410397.2020.1746065

Impact of the COVID-19 Pandemic on Family Planning and Ending Gender-based Violence, Female Genital Mutilation and Child Marriage. By UNFPA, with contributions from Avenir Health, Johns Hopkins University (USA) and Victoria University (Australia) Interim Technical Note Information as of; 2020 [accessed 7 April 2022].



Mmeje, O. O., Coleman, J. S., & Chang, T. (2020). Unintended Consequences of the COVID-19 Pandemic on the Sexual and Reproductive Health of Youth. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 67(3), 326–327. <https://doi.org/10.1016/j.jadohealth.2020.06.019>

Moges, Y., Worku, S. A., Niguse, A., & Kelkay, B. (2020). Factors Associated with the Unplanned Pregnancy at Suhul General Hospital, Northern Ethiopia, 2018. *Journal of pregnancy*, 2020, 2926097. <https://doi.org/10.1155/2020/2926097>

Riley, T., Sully, E., Ahmed, Z., & Biddlecom, A. (2020). Estimates of the Potential Impact of the COVID-19 Pandemic on Sexual and Reproductive Health In Low and Middle-Income Countries. *International perspectives on sexual and reproductive health*, 46, 73–76. <https://doi.org/10.1363/46e9020>

Vora, K. S., Saiyed, S., & Natesan, S. (2020). Impact of COVID-19 on family planning services in India. *Sexual and reproductive health matters*, 28(1), 1785378. <https://doi.org/10.1080/26410397.2020.1785378>

World Health Organization. Maternal and reproductive health, Maternal mortality, Data by country. <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>; 2019 [accessed 9 April 2022].

World Health Organization. Preventing unsafe abortion. <https://www.who.int/news-room/factsheets/detail/abortion>; 2021 [accessed 7 April 2022]

Yılmaz, V. (2020). Sexual and Reproductive Health Services Monitoring Report in Turkey Before and During the Pandemic. Turkish Family Health and Planning Foundation. (<https://dspace.ceid.org.tr/xmlui/handle/1/1786>) [accessed 9 April 2022].

Zaigham, M., & Andersson, O. (2020). Maternal and perinatal outcomes with COVID-19: A systematic review of 108 pregnancies. *Acta obstetrica et gynecologica Scandinavica*, 99(7), 823–829. <https://doi.org/10.1111/aogs.13867>