ANKARA MEDICAL JOURNAL

Research Article

Ankara Med J, 2022;(2):215-229 // 10.5505/amj.2022.64614

INFLUENCE OF COVID-19 PANDEMIC ON SEXUAL LIFE: WHAT IS THE SITUATION IN AN URBAN REGION OF TURKEY?

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Submitted: 21.12.2021 // Accepted: 07.05.2022

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ANKARA MEDICAL JOURNAL

Abstract

Objectives: It was aimed to evaluate the effect of the Covid-19 pandemic on couples' sexual life and to investigate whether any difficulties were faced in supplying the proper counseling in family planning.

Materials and Methods: Volunteers who attend to family medicine outpatient clinic were recruited in the study to complete a cross-sectional online survey. Participants were asked to sociodemographic characteristics, used family planning methods, difficulty in accessing the method, development of unplanned pregnancy, Covid infection of the spouses, and retrospectively report their sexual behavior frequency, desire, and relationship satisfaction during and before the pandemic. Then International Index of Erectile Function (IIEF), and the Female Sexual Function Index (FSFI) were administered.

Results: A total of 195 volunteers whose mean age was 40±7.94 participated in the study. Difficulty in accessing family planning methods was 3.59%, and the unintended pregnancy rate was 57.14%. Sexual intercourse frequency was once a month or less for 17.95% and once a week or more for 67.18%. A decrease in sexual intercourse was observed in 33.33%. Erectile dysfunction was detected in 68.92%. Sexual dysfunction was found in 52.07% of the women. The mean FSFI score was 23.77 ± 8.27, while the median IIEF score was 60. The frequency of sexual intercourse, and change in sexual desire were not influenced by Covid-19 pandemic.

Conclusion: Sexual life in both genders was not regressed, but access to methods and counseling about family planning was negatively affected by Covid-19 pandemic. Moreover, unintended pregnancies were observed at higher rates even in a highly educated population during the Covid-19 pandemic.

Keywords: Covid-19 pandemics, family planning, FSFI, IIEF, sexual dysfunctions.

Introduction

The Covid-19 pandemic has become one of the most crucial health problems worldwide. The virus is transmitted from droplets and contaminated surfaces through the hands, eyes, nasal mucosa, or mouth.[1] It is a significant cause of mortality and morbidity all over the world. It has made it compulsory to take drastic measures worldwide, including social isolation and quarantine. During the epidemic, individuals are expected to maintain social distance from other people as much as possible. It is thought that this process may cause some changes in the sexual behavior of individuals.[2,3]

In the Covid-19 pandemic, several factors can affect sexual behavior. Increased time spent together, less workload, and fewer social or family obligations may facilitate sexual intimacy. However, constant coexistence may increase the possibility of interpersonal conflict and stress, loss of income, and mental and physical weakness due to medical conditions that may negatively affect sexual life. The net result in an individual's sexual behavior is the cumulative effect of facilitating and limiting factors.[3]

Regarding sexual health, the current debate is whether there will be an increase in sexual activity with the pandemic; therefore, it is in the direction of whether it will be a new birth explosion or vice versa. More depression and less sexuality are predicted for acute anxiety and uncertainty. But it should not be forgotten that even in survival-mode societies, sexuality has a place because it is a fundamental expression of the human experience.[4]

Sexuality is an essential issue within the relationship dynamics of the partners. It should be a part of the health service to be offered to individuals with a holistic perspective. There are few studies conducted on different groups from Turkey in the early stages of the pandemic. However, no population-based studies have been found.[5-7] Available studies have focused only on sexuality, and there is no comprehensive data also, including family planning and reproductive health. Sexuality is not an easy subject for our country to discuss and study, and the fact that there are few studies on this subject has encouraged us.

In this study, we aimed to evaluate the changes in the sexual lives of our participants and to investigate whether people have faced difficulties in reaching the proper counseling in family planning one year later from the beginning of the pandemic.

Materials and Methods

This descriptive study was conducted on volunteers over the age of 18 who applied to a university hospital department of family medicine outpatient clinic in Turkey. Between 01-28 February 2021, 228 individuals applied to our outpatient clinic for various reasons. When detailed, a wide range of reasons for application, from a drug prescription to general preventive healthcare management, were observed. We informed them about the aims, stages, and confidentiality of the study, and 195 people volunteered to participate.

Only one of the spouses was included in the study. Those who are physically handicapped (visually disabled, deaf and speech handicapped persons), those whose mental faculties were not sufficient to answer the questions in the questionnaires, women in menopause, individuals who did not have active sexual activity in the last eight weeks, and incomplete questionnaires were excluded from the study.

In the research, the data form consisting of 40 questions for women and 35 questions for men was filled by the participants through online questionnaires. To reduce the risk of disease transmission and to acquire correct answers without being influenced by researchers, online questionnaire forms were directed to participants. Filling out the questionnaire took an average of 10-15 minutes.

In the first part of the data form, there were 20 questions prepared by the researchers, including 12 questions for sociodemographic characteristics, three questions that are thought to affect sexuality, and five questions to evaluate the impact of the Covid-19 pandemic. Additionally, vaginal dryness was asked to the women participants. With the personal information form, participants' age, education/income level, marital status, duration of the marriage, number of children, place of residence, occupation, smoking-alcohol use, existing chronic diseases, and medications were learned. Again, in this section, the family planning method used for the last year, the difficulty in accessing this method, the development of unplanned pregnancy after March 2020, the illness of themselves or one of the spouses during the Covid period, and whether there was a change in sexual desire and frequency of sexual intercourse during this period, and coexistence with different partners were questioned. In the second part, sexual functions were evaluated. For this purpose, the Female Sexual Function Index (FSFI) was used for female participants and the International Index of Erectile Function (EIIF) for males.

Female sexual function index (FSFI): It was developed by Rosen et al. in 2000 to evaluate the sexual functions of female participants. Its Turkish adaptation was performed by Öksüz et al.[8,9] A validation study determined the validity and reliability of the Turkish version of the questionnaire. It is a 19-item inventory of six subgroups: desire, arousal, lubrication, orgasm, satisfaction, and pain. Subscale scores and FSFI total scores are calculated according to a different scoring system by the researchers who developed the questionnaire. The scale reflects

sexual function in the last month according to sub-scores and total scores. The Cronbach's alpha value of the scale was 0.75-0.95, and the complete test-retest reliability was high for all domains (r=0.80-0.90) and the total score (r=0.92). Rosen et al. updated the cutoff value to 26 in 2005.[10]

International index of erectile function (IIEF): It was validated by the Society of Andrology in 2002 to assess the sexuality of male participants. It is a 15-item questionnaire consisting of five subgroups: erectile function, orgasmic function, sexual desire, sexual satisfaction, and overall satisfaction. Subgroup scores and total IIEF scores are obtained by scoring between 0 and 5 for each of the first ten questions and 1 to 5 points for the questions among 10-15. Bayraktar and Atun evaluated the reliability of the IIEF with Cronbach's alpha analysis and its correlation with the test-retest correlation coefficient in two consecutive IIEF queries, and they found a high degree of internal consistency and correlation for each of the five domains and the total scale (Cronbach's $\alpha > 0.91$, $r = 0.909$).[11-13]

Statistical Analysis

The data were uploaded to the SPSS (vers. 23.0) program. The normality of distribution was tested with the Kolmogorov-Smirnov test and Q-Q plots. Descriptive statistics (frequency, percentage, mean, median, minimum-maximum value, interquartile range) were used in the analysis of the categorical variables. Qualitative data were analyzed with the Chi-Square test, Fisher's Exact Test in 2x2, and multi-eyed layouts. The data obtained by measurement was evaluated with the Mann-Whitney U test. A value of $p<0.05$ was considered statistically significant.

Results

A total of 195 people (female/male: 121/74) were participated in the study. Sexual partners were not included in the study. The mean age was 40.00±7.94 (min-max:25-59); it was 40.54±7.41 (28-59) in men and 39.64±8.26 (25-59) in women. Among men participants, 86.49% (n=64) were at a university or higher educational level and 95.95% (n=71) were married. The rates were higher in women (93.39% (n=113), 99.17% (n=120), respectively). The mean duration of marriage was 13.95±9.54 (min-max:1-39) years. It was found out that 79.72% of men (n=59) and 95.04% of women (n=115) lived in the city center. Among women, level of income was low at 9.92% (n=12), medium at 31.40% (n=38), and high at 58.68% (n=71). For men, these rates were 17.56% (n=13), 25.68% (n=19), and 56.76% (n=42), respectively. Among participants, 70.27% of the men (n=52), 64.46% of the women (n=78) did not have any chronic disease and 83.78% of men (n=62), 75.21% of women (n=91) were not using any medication. When current chronic diseases were detailed, the women/men ratio was as follows: thyroid diseases n=16 (16/0), insulin resistance- type 2 diabetes n=12 (5/7), allergic diseases-urticaria-eczema n=11 (4/7), musculoskeletal and connective tissue diseases n=10 (6/4),

hypertension n=8 (5/3), ischemic heart diseases-rhythm disorder n=7 (2/5), rheumatological diseases n=6 (2/4), hyperlipidemia n=3 (3/0), attention-deficit/hyperactivity disorder n=3 (3/0), respiratory system diseases n=2 (2/0).

Sexual and reproductive health predictors of participants during the pandemic period were given in **Table 1**. Totally 14 (female; n=5 (4.13%), male; n= 9 (12.16%)) participants reported that they experienced pregnancy during the pandemic period. When detailed the unintended pregnancies, 2 (40.00%) of female participants and 6 (66.67%) of male participants were indicated. It was observed that 26.15% (n=51) of the individuals did not use any contraception method. While the rate of ineffective contraceptive methods (coitus interruptus method, calendar method) was 17.95% (n=35), the rate of those who used effective methods (condom, intrauterine device, oral contraceptive, etc.) was 55.90% (n=109). It was determined that 5 of those who experienced unintended pregnancy used condoms, while 3 used ineffective contraceptive methods.

Table 1. Sexual and Reproductive Health Predictors of Participants During the Pandemic Period

	Total n (%)	**Female n (%)**	**Male n (%)**
Family Planning Method (FPM) Used			
Condom	63 (33.32)	44 (36.36)	19 (25.68)
Intrauterine device	30 (15.39)	18 (14.88)	12 (16.22)
Oral contraceptive	5 (2.56)	2 (1.65)	3 (4.05)
Coitus interrupts	32 (16.41)	18 (14.88)	14 (18.92)
Calendar method	3 (1.54)	2 (1.65)	1 (1.35)
Not using	51 (26.16)	28 (23.14)	23 (31.08)
Tubal ligation/vasectomy	9 (4.62)	9 (7.44)	0
Those who have difficulties in accessing FPM	7 (3.59)	4 (3.31)	3 (4.05)
Unintended pregnancies (Pregnant women=14)	8 (57.14)	2 (1.65)	6 (8.10)
Frequency of sexual intercourse			
Once a month or less	35 (17.95)	22 (18.18)	13 (17.57)
Once every two weeks	29 (14.87)	15 (12.40)	14 (18.92)
Once a week	67 (34.36)	46 (38.02)	21 (28.38)
Twice a week or more	64 (32.82)	38 (31.40)	26 (35.13)
Change in frequency			
Increased	13 (6.67)	7 (5.79)	6 (8.11)
Constant	117 (60)	70 (57.85)	47 (63.51)
Decreased	65 (33.33)	44 (36.36)	21 (28.38)
Change in sexual desire			
Increased	7 (3.59)	3 (2.48)	4 (5.41)
Constant	129 (66.15)	76 (62.81)	53 (71.62)
Decreased	59 (30.26)	42 (34.71)	17 (22.97)
History of association with another partner	6 (3.08)	0	6 (8.11)

The individuals were examined in terms of sexual intercourse frequency, and among experienced a change (n=78), a decrease was observed in 83.33% (n=65). When read in terms of sexual desire, among participants who experienced differences (n=66), the rate of individuals with a decrease was 89.39% (n=59).

The effect of Covid-19 infection on sexual functions is given in Table 2. This effect was evaluated according to gender. While 24.32% (n=18) of men and 28.38% (n=21) of their sexual partners had a history of Covid-19 infection; these rates in women were 26.45% (n=32), and 24.79% (n=30), respectively. It was observed that being infected with Covid-19 and infection of sexual partners did not create a statistically significant difference in sexual functions.

When detailed according to gender, 60.00% (n=18) of the women whose partners had Covid-19 (n=30) did not change in their sexual desire (x^2=0.135, p=0.713) and 53.33% (n=16) of them did not change the frequency of sexual intercourse (x^2=0.334, p=0.563). It was observed that 85.71% (n=18) of male participants did not change their sexual desire (x^2=2.865, p=0.091), and 61.90% (n=13) did not change the frequency of sexual intercourse if their sexual partners had a history of the disease (n=21), (x^2=0.033, p=0.856).

Table 2. The Effect of Covid-19 Infection on Sexual Functions

	History of Covid19 infection, n=50, (%)	**The history of Covid-19 in the partner, n=51, (%)**
Sexual dysfunction		
No (n=81)	23 (46)	21 (41.18)
Yes (n=114)	27 (54)	30 (58.82)
p	0.458	0.951
Frequency of sexual intercourse		
Once a month or less (n=35)	8 (16)	7 (13.73)
Once a week or less (n=96)	27 (54)	26 (50.98)
Twice a week or more (n=64)	15 (30)	18 (35.29)
p	0.735	0.651
Change in Frequency of Sexual Intercourse		
Increased (n=13)	2 (4)	3 (5.88)
Constant (n=117)	29 (58)	29 (56.86)
Decreased (n=65)	19 (38)	19 (37.26)
p	0.548	0.780
Change in Sexual Desire		
Increased (n=7)	1 (2)	1 (1.96)
Constant (n=129)	30 (60)	36 (70.59)
Decreased (n=59)	19 (38)	14 (27.45)
p	0.334	0.639

Scale scores evaluating participants' sexual dysfunctions were summarized for both genders in Table 3. Among female participants, the effect of vaginal dryness on arousal, orgasm, satisfaction, and pain subscale scores and the total score was not found to be statistically significant (U1=1.314, p1=0.215, U2=1.372.5, p2=0.103, U3=1.276, p3=0.319, U4=1.262, p4=0.360, U5=1.386.5, p5=0.086 respectively). Sexual desire scores were significantly affected by vaginal dryness (U1=1.495, p1=0.013).

Table 3. Scale Scores Evaluating Participants' Sexual Dysfunction

Female (n=121)	**Mean ±SS (min-max, median)**
FSFI total score	23.77 ± 8.27 (2-34, 26.20)
Sexual desire	3.14 ± 1.01 (1-6, 3)
Sexual arousal	3.28 ± 1.38 (0-6, 3.30)
Lubrication	4.39 ± 1.67 (0-6, 4.80)
Orgasm	4.05 ± 1.88 (0-6, 4.80)
Sexual satisfaction	4.34 ± 1.63 (1-6, 4.80)
Pain	4.56 ± 1.85 (0-6, 5.20)
Sexual disfunction (FSFI total score <26.55), n (%)	63 (52.07)
Vaginal dryness, n (%)	23 (19.01)
Male (n=74)	**Median (IQR, Min-Max)**
IIEF Total score	60 (28.75, 5-70)
Erectile disfunction	24 (9, 1-27)
Orgasmic function	10 (6, 0-10)
Sexual desire	7 (3, 2-10)
Sexual satisfaction	11 (6, 0-15)
Overall satisfaction	8 (6, 2-10)
Erectile disfunction level	**n (%)**
Serious level	11 (14.86)
Medium level	5 (6.75)
Mild to moderate level	13 (17.57)
Mild level	22 (29.73)
None	23 (31.09)

FSFI: Female sexual function index, IIEF: International Index of Erectile function

The Covid-19 history of the women themselves or their sexual partners did not significantly affect the FSFI total score. The sexual desire scores of women who had Covid-19 were found to be significantly higher than those who did not have the infection (p=0.044). In terms of other subscale scores, there was no significant difference between women or their sexual partners having Covid-19. The total score, sexual desire, and lubrication subscale scores of the women who had no change in sexual desire were found to be significantly higher. The scale scores were also found to be high in women who had no change in the frequency of sexual intercourse, but it was not statistically significant (Table 4).

There was no statistically significant difference in male participants' or their sexual partners' history of Covid-19 in terms of total and subscale scores. The median total score, sexual satisfaction, and overall satisfaction subscale score of men who did not change in sexual intercourse frequency and in sexual desire were found to be significantly higher. In addition, the median erectile function, orgasmic function, and sexual desire score were higher in men who had no change in their sexual desire (Table 4).

Table 4. Comparison of Sexual Dysfunction Scale Scores in Both Genders According to Covid-19 Status and Change in the Sexual Function

	The participant's Covid-19 status			Partner's Covid-19 status			Change in the frequency of sexual intercourse			Change in sexual desire		
	Yes	No	p	Yes	No	p	Yes	No	p	Yes	No	p
Female (FSFI)												
Total score	26.75 (7.53)	25.90 (11.90)	0.362	26.25 (9.48)	26.20 (11.20)	0.829	24.60 (10.10)	27.20 (9.55)	0.237	23.90 (11.55)	27.25 (8.58)	**0.029**
Sexual desire	3.60 (1.20)	3 (1.20)	**0.044**	3.60 (1.20)	3 (1.20)	0.803	3 (1.20)	3.60 (1.20)	0.228	3 (1.20)	3.60 (1.20)	**0.026**
Sexual arousal	3.30 (1.73)	3.30 (2.10)	0.394	3 (1.80)	3.30 (2.10)	0.609	3 (2.10)	3.30 (2.10)	0.448	3 (2.10)	3.30 (1.80)	0.104
Lubrication	4.80 (0.60)	4.80 (2.10)	0.871	5.10 (1.13)	4.80 (2.10)	0.760	4.50 (1.80)	5.10 (1.58)	0.137	4.50 (2.10)	5.10 (1.73)	**0.016**
Orgasm	4.80 (1.80)	4.80 (3.20)	0.694	4.40 (2.50)	4.80 (2.40)	0.296	4.40 (3.20)	4.80 (2.50)	0.554	4 (3.40)	4.80 (2.40)	0.113
Sexual satisfaction	5 (1.90)	4.80 (2.60)	0.341	4.80 (2.90)	4.80 (2.40)	0.889	4.80 (2.40)	4.80 (2.50)	0.460	4.80 (3)	4.80 (2)	0.059
Pain	5.40 (1.40)	5.20 (2.40)	0.740	5.20 (1.30)	5.20 (2.40)	0.651	4.80 (2.40)	5.60 (2.10)	0.172	4.80 (2.40)	5.60 (1.90)	0.250
Male (IIEF)												
Total score	63 (31)	59 (28.25)	0.610	62 (11.50)	57 (34.50)	0.257	52 (32)	62 (14)	**0.041**	33 (33)	62 (13.50)	**0.002**
Erectile dysfunction	24 (9.25)	24 (9)	0.569	24 (5)	24 (12)	0.230	24 (9)	25 (7)	0.218	17 (15)	25 (5)	**0.005**
Orgasmic function	10 (2.75)	10 (6.75)	0.837	10 (1)	10 (7.50)	0.088	8 (6)	10 (2)	0.080	4 (8)	10 (1)	**<0.001**
Sexual desire	8 (3.50)	7 (3)	0.286	8 (2.50)	7 (3.50)	**0.019**	7 (3)	7 (2)	0.663	5 (3.50)	8 (1)	**0.005**
Sexual satisfaction	12 (6.50)	10.50 (6)	0.747	12 (4)	10 (7.50)	0.458	9 (7)	12 (4)	**0.005**	6 (6.50)	12 (5)	**0.001**
Overall satisfaction	8 (6)	8 (6)	0.698	8 (3)	8 (6)	0.392	6 (4)	9 (3)	**0.003**	4 (6)	8 (3.50)	**<0.001**

Mann- Whitney U test was used, and values were given as median (IQR). Statistically significant parameters were shown in bold characters.

Discussion

Pandemic deeply affects social life. Quarantines implemented in countries, the increase in the density of health centers, and the rapidly increasing number of cases can cause anxiety and depression in individuals. The Covid-19 pandemic has made it mandatory for people to maintain social distance from the people around them to reduce the risk of disease transmission. This situation is expected to affect not only interpersonal social communication but also the sexual lives of partners with each other. Sexual life can be affected by diseases, dysfunctions, and physical, emotional, and mental states. This may have resulted in sexual dysfunctions in individuals. While this study was being planned, it was investigated whether the pandemic had such an effect. The main findings of this study were that there was no regression in sexual life in both genders in most of the participants, and unintended pregnancies were observed even in the high-level educated population during the Covid-19 pandemic.

There are many studies in the literature to determine the variability in the frequency of sexual intercourse and sexual reluctance in the pandemic process. Conducted on 9000 patients in China during the pandemic process, Ossola A et al. found that 47% of people were negatively affected in their sex lives.[14] On the contrary, Arafat et al. reported an increase in sexual activity in Bangladesh, India, and Nepal.[3] In a study of 868 people in England, it was shown that sexual activity decreased in social isolation. [2] In another study conducted in China, a decrease in sexual desire was found in 25% of the cases. In addition, a reduction in sexual satisfaction was observed. Again, in the same study, a decrease was found in risky sexual behavior acts (another partner).[15] However, it has been determined that individuals have avoided being with different partners during the pandemic. Authors reported that this situation might be caused by legal restrictions, anxiety, fear, and psychological stress.[16] Differences between countries may be related to the level of development and culture.

In our study, sexual desire and the frequency of sexual intercourse were not influenced by most of the participants when compared to the pre-pandemic period. Erectile dysfunction was the most common sexual dysfunction in men and vaginal dryness and pain in women. When the sexual dysfunction scale scores of the women and men participating in the study were examined, it was seen that there was no significant change in terms of sexual intercourse, sexual desire, and sexual satisfaction compared to the pre-pandemic period. Among all the individuals participating in the study group, no changes were detected in the sexual life of those with a history of Covid-19 infection in themselves or in their partners. The rate of intercourse with different partners was calculated as 3.10%. Although individuals with a high level of education are in the majority in our study, the existence of this risky situation seems to be a separate discussion topic.

In addition, in our study, sexual desire decreases when female partners are infected. In the pre-pandemic period, sexual avoidance behaviors in females have generally been associated with different conditions, such

as psychiatric diseases (major depression, obsessive-compulsive disorder, etc.),[17,18] problems between the couples (lack of intimacy, attachment problems)[19,20] or some chronic diseases (hypertension, coronary artery disease, cancer, rheumatoid arthritis, epilepsy, migraine).[21,22]

In studies conducted in the early stages of the pandemic, it was observed that women were more affected by the pandemic process. Karagöz et al. reported that females had twofold higher sexual avoidance behaviors than males. They stated that the intimate life of couples might also be influenced by the living conditions (children staying at home due to closed school, tiny house, housework, etc.).[5] In our study, which was carried out one year later from the beginning of the pandemic, it was found that the situation remained the same. However, these conditions were not questioned in both studies. So, further studies are needed to examine this issue.

Like India, most countries worldwide have noticed that it has to take drastic compulsory measures against the infection as a national emergency.[23] Due to the coordination of their strategies regarding early detection, treatment, isolation of sick people, and crucial healthcare problems, some preventive healthcare practices could not be maintained as their priority. As shown in the past pandemics, counseling and using of contraception, which is an indispensable part of sexual health, might also be neglected. It had been stated that during the West African Ebola epidemic, the practice of contraception declined by 65% in Liberia and 23% in Sierra Leone.[24]

The latest estimates of the influence of Covid-19 on contraception have been announced by UNFPA (United Nations Population Fund) and Avenir Health with an analysis of 115 low- and middle-income countries. An estimated 12 (4-23) million women may have been unable to access family planning services. As a result of these disruptions, as many as 1.4 million (500 000-2.7 million) unintended pregnancies may have occurred before women could resume the use of family planning services. Compared with the pre-Covid-19 period, 41% of countries reported that services had been interrupted.[25]

World Health Organization reported that some 59% of countries (n=102) had 'partial', and 9% had 'severe' disruptions in family planning and contraception services.[26] In a study from Bangladesh, the prevalence of family planning use was 36.03% suggesting a 23% (approximately) decrease compared to pre-pandemic data. Besides, it was shown that 24.42% of the participants were using oral contraceptive pills; versus 61.7% before the pandemic period.[27] The decline in the prevalence of contraceptive use due to Covid-19 disruptions among women of reproductive age (15–49 years) has been estimated to be 10% for each modern method and 20% for female and male sterilization.[28]

However, countries have needed to coordinate their strategies to hinder unintended pregnancies. Ensuring that people have access to contraceptive services will reduce avoidable pressures on the health system to manage the consequences of unintended pregnancy and future detrimental consequences of population

growth. To prevent unintended pregnancy, couples who are waiting for the provision of contraception should be reminded to use an effective, reversible method of contraception at this time as the pandemic has limited health care accessibility.[29] Existing low use of health services for permanent contraception compounded with compromised access to family planning services may lead to an increased number of unintended pregnancies and unsafe abortions, thus adversely affecting maternal and neonatal health.[30]

We asked whether there was a problem in supplying the used family planning method compared to the pre-pandemic period. Unfortunately, 3.59% of the participants stated that they had difficulty accessing family planning methods, and the unintended pregnancy rate was found to be 57.14%. Most of the volunteers who participated in our study had a high level of education. On the other hand, considering the negative consequences of unintended pregnancies, we think these rates may be higher for individuals with lower education levels.

Our study had some limitations due to the lack of evidence-based data on the participants before the pandemic. It was designed this way because the pandemic has been an unpredictable disaster. The evaluation was made based on the individuals' self-reports with an online survey of the patients who were admitted to the hospital. Moreover, it was carried out in the family medicine outpatient clinic, which may be thought to point the society. However, descriptive study findings could not be naturally generalized to the whole population. The study was conducted at the end of the first year following the first case of the pandemic in our country may have turned into an old routine harmony over time. In addition, a gender comparison could not be made in terms of dysfunction rates due to the different measurement tools. Unfortunately, in low-income and the low-educated population was not volunteer to participate in the study, and the number of participants was small. It may have caused the study topic because sexuality is still an issue that is being prohibited in terms of social and religious customs in our city.

However, our study had some superior aspects. First of all, this study was conducted on both genders, and secondly, the research was designed to evaluate full of sexual life. Also, people filled out the online surveys themselves, and it may have caused them to answer more frankly. Finally, it is thought to be beneficial for professionals working in this field to obtain data on reproductive health, such as unintended pregnancies and different partners. Although it is a single-center study, it is thought that this study provides essential data on reproductive health and maybe a guide for completing the deficiencies in terms of public health.

Conclusion

When all these findings were evaluated, it was concluded in our study that if individuals had sexual dysfunctions before the pandemic, this situation continued during the pandemic period but did not increase. Similarly, there was no change in the pandemic process in individuals who did not experience sexual problems.

Most of the participants in our study were high-income and well-educated individuals living in the city center. Concerning this, the majority may not have had difficulty supplying and using family planning methods. But unfortunately, the unintended pregnancy rate was high. It was not ignored that if unintended pregnancy occurred such this population and at such a higher rate, how the low-income and low-educated population should be investigated thoroughly. Moreover, this study was done in the first year of the pandemic, and the conclusions may have come out like this. When the pandemic is over, prospective studies with broad participation will enable us to make more precise inferences on the subject.

Ethical Considerations: The necessary ethics committee approval was obtained for the study from the Non-Invasive Clinical Research Ethics Committee with the date 21.10.2020 and decision number 2020-10/28. All participants included in the study were informed about the study and signed informed consent forms.

Conflict of Interest: The authors declare that they have no conflicts of interest to disclose.

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