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ORIGINAL ARTICLE

Access to Health Services Needed by the Society During Covid-19 Period and the Relationship Between Fear of Covid 19 and Perceived Health: Cross-Sectional Study

Covid-19 Döneminde Toplumun İhtiyaç Duyduğu Sağlık Hizmetlerine Erişme Durumu ve Covid-19 Korkusu ile Algılanan Sağlık Arasındaki İlişki: Kesitsel Çalışma

[1]Selma Infal Kesim, [2]Çigdem Samanci Tekin

[1]Selcuk University Akşehir Kadir Yallagöz School of Health, Department of Nursing, Akşehir, Konya, Türkiye
[2]NigdeÖmerHalisdemir University Department of Public Health, Niğde,Türkiye

Correspondence

Selma Infal Kesim, Selcuk University Akşehir Kadir Yallagöz School of Health, Department of Nursing, Akşehir, Konya, Türkiye

E-Mail: sinfal@selcuk.edu.tr

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ABSTRACT

Aim: In the Covid-19 pandemic, the need for health services of the society increased with the burden of health institutions. This study was planned to determine how the health perception of the society, fear of Covid-19, and current conditions affected individuals' access to healthcare services they needed.
Materials and Methods: This study is of cross-sectional type. An online anonymous questionnaire was first sent to people in the directory via social media, using the snowball sampling method, and they were encouraged to pass the survey to others. Since the State of the Republic of Türkiye recommended minimizing face-to-face interaction and staying in social isolation at home during the Covid-19 period, and due to restrictions and prohibitions, it was ensured that the surveys were applied to the participants online with the form link created in Google Forms. A total of 434 people were reached.
Result: The average age of the participants is 30.69 ± 10.78 and 20.7% of them are male. 50.9% of them are single and 71.2% are university graduates. 78.1% of them have a nuclear family type and almost half of them reported their income as income equal to expenses. Participants' Coronovirus-19 Fear Scale is overall Mean = 18.28, SD = 6.90 and it is not high, and Perception of Health Scale is overall Mean = 52.41, SD = 8.04 and it can be qualified as high.
Conclusion: Participants' fear of Covid-19 is lower than expected. However, people avoided going to hospitals even for routine check-ups and drug dosage adjustments.

Keywords: Coronavirus, Covid-19, healthcare, society, health

ÖZ

Amaç: Covid-19 pandemisinde sağlık kuruluşlarının yükü ile beraber toplumun sağlık hizmetlerine ihtiyacı da artmaktadır. Bu çalışma, toplumun sağlık algısı, Covid-19 korkusu ve mevcut koşulların bireylerin ihtiyaç duydukları sağlık hizmetlerine erişimini nasıl etkilediğini belirlemek amacıyla planlandı.
Gereç ve Yöntem: Bu çalışma kesitsel tiptedir. Rehberdeki kişilere ilk olarak kartopu örnekleme yöntemiyle sosyal medya üzerinden çevrimiçi anonim anket gönderilmiş ve anketi başkalarına aktarmaları için teşvik edilmiştir. Türkiye Cumhuriyeti Devleti, Covid-19 döneminde yüz yüze etkileşimin en aza indirilmesini ve evde sosyal izolasyonun sağlanmasını tavsiye ettiğinden, kısıtlamalar ve yasaklar nedeniyle anketlerin katılımcılara Google Formlar'da oluşturulan form bağlantısı ile çevrimiçi olarak uygulanması sağlandı. Toplam 434 kişiye ulaşıldı.
Bulgular: Katılımcıların yaş ortalaması 30,69 ± 10,78 olup, %20,7'si erkektir. Bunların %50,9'u bekar ve %71,2'si üniversite mezunudur. %78,1'i çekirdek aile tipine sahiptir ve yaklaşık yarısı gelirlerini gelir giderlerine eşit olarak bildirmiştir. Katılımcıların Coronovirus-19 Korku Ölçeği genel olarak Ortalama = 18.28, ss = 6.90 ve yüksek değil ve Genel Sağlık Algısı Ölçeği Ortalama = 52.41, ss = 8.04 ve yüksek olarak nitelendirilebilir.
Sonuç: Katılımcıların Covid-19 korkusu beklenenden düşüktür. Ancak insanlar rutin kontroller ve ilaç doz ayarlamaları için bile hastanelere gitmekten kaçındı.

Anahtar Kelimeler: Koronovirüs, Covid-19, sağlık hizmetleri, toplum, sağlık

Introduction

Pandemics are important because they not only affect people's psychology, their perception of work and profession, but also cause major and significant changes in all areas of life such as health, social life, economy and education, and can have a devastating effect (1,2). People may experience fear in the face of situations such as pandemics, where an environment of uncertainty occurs and the feeling of losing control over their own lives (3). In addition, the fact that it spreads all over the world in a short period of three months, that is, its speed of spread is high, no matter what kind of pandemic it resembles, it is lethal and causes serious diseases. It can create fear due to situations such as not knowing the path to follow, how this disease will result when infected (4). The SAR-CoV-2 virus (5) spreads quickly due to its ability to spread from person to person, and case reports were made from almost all countries all over the world (6). Those over the age of 60, people with serious chronic medical conditions and healthcare workers were most affected

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Complaints: geneltip@selcuk.edu.tr

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by the disease (5). Death cases were generally seen in elderly patients or those with systemic diseases (6).

With the pandemic, the current healthcare system of many countries, including developed countries, had been questioned. Additionally, there was a significant increase in total case and death rates (4). Covid-19 has had direct and indirect effects on health. Its direct effects include deaths, hospitalizations and many complications. Indirect health effects are the decrease in the demand for health services, that is, their postponement. Postponed healthcare services may lead to more complications and therefore costs in the future (7). In this process, the health sector had been put under great strain due to reasons such as excessive and tiring workload and working conditions brought about by the extremely increasing number of cases, and limitations in human resources. The health systems of many countries had come to the point of bankruptcy due to a load beyond their capacity and therefore were not able to produce sufficient healthy services (8).

The functioning of health services provided as preventive, curative, rehabilitative, and health promotion services and community access to these services gain more importance during the pandemic period (9). Pandemics are situations where preventive health services, basic health services, curative health services, quarantine and isolation procedures need to be managed quickly. In these cases, it is necessary to manage the financial resources, infrastructure, personnel resources very well; this issue is one of the duties of health management (10). With the burden of health institutions in the Covid-19 pandemic, society's need for health services is also increasing. It is necessary to protect and strengthen individual health in protection from pandemics, as well as those with chronic diseases to be able to manage their chronic diseases better than normal times. However, due to the increased demand for healthcare services as a result of the pandemic, health institutions' routine services are disrupted.

On the other hand, during the Covid-19 pandemic period, all healthcare institutions, especially hospitals, became risky environments due to the high incidence of Covid cases. In addition, many hospitals in our country were transformed into pandemic hospitals and started to serve only patients with Covid. In this study, it is aimed to determine how the health perception of the society, fear of Covid-19, and current conditions affected individuals' access to healthcare services they needed.

Materials And Methods

Participants

This study is of cross-sectional type. An online anonymous questionnaire was first sent to people in the directory via social media, using the snowball sampling method, and they were encouraged to pass the survey to others. Since the State of the Republic of Türkiye recommended minimizing face-to-face interaction and staying in social isolation at home during the Covid-19 period, and due to restrictions and prohibitions, it was ensured that the surveys were applied to the participants online with the form link created on Google Forms. Informed consent was obtained from all participants. The data were collected between 04-07 December 2020. A total of 434 people were reached. According to Türkiye's 2020 TÜİK data, the number of people aged 18 and over is 60 863 705 (11). Accordingly, the number of samples was found as 385 with the formula used in calculating the sample with a known population. Formula for calculating the sample with a known population:

$$n = \frac{Nt^2 p\,q}{(N-1)\,d^2 + t^2 p\,q} = \frac{60\,863\,705\,(1.96)^2 0.50\;0.50}{(60\,863\,705-1)\,(0.05)^2 + (1.96)^2 0.50\;0.50}$$

Data Forms That Are Used

In the study, a personal information form created by the researchers, the Perception of Health Scale, and the Coronavirus-19 Fear Scale were used.

Personal Information Form used in the study is a form consisting of a total of 27 items about the socio-demographic status of the participants (age, gender, Marital Status, State of having children, Education Status, Family type, Monthly income perception, Health-related professional education status, Being an active health worker, Related to Covid-19, Current disease status, Reported drug use status, Continuous medication use, Living within easy reach of a health institution), status of the participants associated with Covid-19, the status of the participants before and after the pandemic regarding some variables.

Coronavirus-19 Fear Scale (CFS):

It is a scale developed by Ahorsu et al. (2020) to evaluate individuals' fear of coronavirus using of psychometric tests. The author has stated that this scale will be useful in providing valuable information about the fear of Covid-19 to facilitate public health initiatives to alleviate the fears of the public. Participants indicate their level of agreement with statements using a five-item Likert-type scale. Answers include "strongly disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree". The minimum possible score for each question is 1 and the maximum score is 5. The total score is calculated by adding the score for each item (between 7 and 35). The higher the score, the greater the fear of coronavirus-19. The internal consistency of the scale was 0.82 and test-retest reliability was 0.72 (12). The Turkish reliability and validity study of the scale was conducted by Ladikli et al. (2000). There is no reverse item on the scale. The Cronbach Alpha internal consistency coefficient was 0.86 and the correlation coefficient calculated as a result of test-retest was 0.86 (13).

Perception of Health Scale (PHS):

Perception of Health Scale was developed by Diamond et al. (2007). The scale is a five-point Likert-

type scale consisting of 15 items and four sub-factors (control centre, awareness, precision, importance of health). Cronbach Alpha Values according to the subgroups of the scale: Control centre 0,90; Self-awareness 0.91; Precision 0.91; The importance of health is 0.82 (14). The Turkish validity and reliability study of the scale was conducted by Kadıoğlu and Yıldız (2012). Positive statements were scored as "Strongly agree = 5", "Agree = 4", "Undecided = 3", "Disagree = 2", "Never agree = 1". Items 1, 5, 9, 10, 11, and 14 are a positive attitude, items 2, 3, 4, 6, 7, 8, 12, 13, and 15 are negative statements. Negative statements were scored inversely. The minimum score that can be obtained from the scale is 15 and the highest score is 75. Cronbach Alpha Values according to the subgroups of the scale: Control center 0.76; Self-awareness 0.63; Precision 0.71; The importance of health is 0.60 (15).

Ethical Considerations

Before conducting the study, an ethical approval was obtained from the Ethics Committee of Nigde Ömer Halisdemir University (No: 86837521-050.99-E.44100). Application for scientific research studies has been made and approval has been given from the T. C. Ministry of Health General Directorate of Health Services. In addition, informed consent was obtained from all participated in this study. They were informed that their answers would be kept confidential. The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

Data analysis

The analysis of the data was done in the IBM SPSS program. Data were summarized as mean ± standard deviation and percentage. T-test was used for parametric comparison of two groups and ANOVA for more than two groups. Post Hoc tests Hochberg and Games-Howell were used for more than two groups that were found significant. Pearson's correlation analysis was performed to find the correlation between scales. The level of significance was taken as 0.05.

Results

Information on the socio-demographic status of the participants is presented. The average age of the participants is 20.7% of them are male. 50.9% of them are single and 71.2% are university graduates. 78.1% of them have a nuclear family type and almost half of them reported their income as income equal to expenses. 15.2% of the participants in the study stated that they and 23.3% of their family members had had or currently had the coronavirus (Covid-19) disease. In addition, 15% stated that they had an existing disease, 12.9% used medications with a report, 17.3% used drugs continuously, and 92.4% stated that they lived within easy reach of a health institution (Table 1).

The participants' Covid-19-related status were reported. 98.5% of the participants stated that they had regular health checks before the pandemic for their existing diseases, and 76.4% of those who use drugs continuously continued without making any changes.

Table 1: Socio-demographic status of the participants

Variable			
Age		X̄ ± SD 30.69 ± 10.78	Min- Max 18-70
		n	%
Gender			
Male		90	20.7
Female		344	79.3
Marital Status			
Married		200	46.1
Single		221	50.9
Widowed/Divorced		13	3.0
State of having children*			
Yes		178	41.0
No		254	58.5
Pregnant		2	0.5
Education Status			
Primary School		11	2.5
Secondary School		5	1.2
High School		49	11.3
University		309	71.2
Post Graduate		60	13.8
Family type			
Nuclear family		339	78.1
Extended family		54	12.4
I live alone		38	8.8
Broken family		3	0.7
Monthly income perception			
Income is equal to expenses		214	49.3
Income is less than expenses		114	26.3
Income is more than expenses		106	24.4
Health-related professional education status			
Yes		238	54.8
No		196	45.2
Being an active health worker			
Yes		117	27.0
No		317	73.0
Related to Covid-19*			
Myself			
	Currently have Covid disease	10	2.3
	I had Covid	56	12.9
My family			
	Currently have Covid disease	17	3.9
	They had Covid	84	19.4
My close environment			
	Currently have Covid disease	62	14.3
	They had Covid	183	42.2
My distant environment			
	Currently have Covid disease	105	24.2
	They had Covid	224	51.6
Nobody got Covid		43	9.9
Current disease status			
Yes		65	15.0
No		369	85.0
Reported drug use status			
Yes		56	12.9
No		378	87.1
Continuous medication use			
Yes		75	17.3
No		359	82.7
Living within easy reach of a health institution			
Yes		401	92.4
No		33	7.6

* More than one option has been marked X̄: Mean, SD:Standard-deviation, Min-Max: Minimum-Maximum

Table 2: Status of the participants associated with Covid-19

	n	%
Regular health checks before the pandemic in the current disease situation		
Yes	64	98.5
No	176	47.7
Drug regulation status after Covid in continuous drug users		
I went to the health facility and consulted my doctor	21	84.0
I called my doctor on the phone and consulted	6	100
I continued without changes	42	76.4
Comparing the frequency of access to health news before and after the pandemic		
Increased	310	71.4
Decreased	35	8.1
Did not change	89	20.5
Frequency of referrals to healthcare institutions before the pandemic (per month)		
1-2 times	92	21.2
3-4 times	5	1.2
5-6 times	6	1.4
7 times and above	3	0.7
Change in the frequency of referrals to health institutions after the pandemic		
Increased	30	6.9
Decreased	224	51.6
Did not change	180	41.5
The most avoided health institution after the pandemic		
University Hospital	55	12.7
Hospitals belonging to the Ministry of Health (State hospital, Sample hospital, Training and research hospital, etc.)	182	41.9
Oral and dental health centre / hospital	34	7.8
Private hospital	10	2.3
Family health centre	11	2.5
Pharmacy	1	0.2
I do not hesitate to go to the whole health facility because I need it	1	0.2
Other	140	32.3
The most easily accessible and served health institution		
University Hospital	49	11.3
Hospitals belonging to the Ministry of Health (State hospital, Sample hospital, Training and research hospital, etc.)	138	31.8
Oral and dental health centre / hospital	6	1.4
Private hospital	72	16.6
Family health centre	131	30.2
Pharmacy	13	3.0
I did not go to any health institutions after the pandemic	25	5.8
Evaluating community applications to healthcare institutions before the pandemic		
Most of them were unnecessary	139	23.0
Few of them were unnecessary	105	24.2
All of them were necessary	70	16.1
I have no idea	120	27.6
Inability to meet the medical care needs of himself or his child due to Covid-19		
Yes	186	42.9
No	248	57.1
Disease status in unmet medical care needs		
Healed spontaneously	63	14.5
Healed with individual efforts (Herbal therapy etc.)	152	35.0
It got worse because it was delayed	8	1.8
It continues the same	73	16.8
Other	18	4.1
Needed medical care *		
Adult emergency services applications	40	13.6
Pediatric emergency services applications	22	7.5
My baby's vaccinations	8	2.7
Children diseases	34	11.5
Pregnancy follow-up	8	2.7
Chronic disease follow-up	32	10.8
Non-chronic conditions that develop later (head, back, leg pain, etc.)	118	39.4
Dental conditions	105	35.6
Routine check / Check up	43	14.6

* More than one option has been marked

When compared before and after the Covid-19 pandemic, the participants (71.4%) stated that their frequency of accessing health news increased. While 51.6% of the participants stated that the frequency of applying to health institutions decreased after the Covid-19 pandemic, 41.5% stated that it did not change. The health institutions that were mostly avoided were hospitals belonging to the Ministry of Health with 41.9%. 32.0% of the participants considered most of the applications to health institutions before the pandemic unnecessary. The rate of those who cannot meet the medical care needs of themselves or their children due to Covid-19 is 42.9%. While 35.0% of unmet medical care needs recover with individual efforts (herbal therapy, alternative medicine methods, etc.), 16.8% continue in the same way (Table 2).

The situations of the participants before and after the pandemic according to some variables are presented. Participants stated that before the Covid-19 pandemic, television was the most common means of getting news in access to health news with 73.7%, followed by social media tools (48.6%). Similarly, after the pandemic, television (81.1%) was the first, and social media (54.8%) was the means of access to health news. Before the Covid-19 pandemic emerged, as the most frequently referenced health institution, 39.4% of the participants mentioned hospitals belonging to the ministry of health, 23.3% of them mentioned family health centres, 15.7% of them mentioned private hospitals, and after the pandemic, 24.0% of the participants said they went hospitals belonging to the ministry of health, 22.4% of them went to family health centres, 18.2% of them went to private hospitals, 17.1% of them did not go to any health institutions. (Table 3).

Table 3: The status of the participants before and after the pandemic regarding some variables

Variable	Before		After	
	n	%	n	%
News retrieval tool providing access to health news *				
Television	320	73.7	352	81.1
Newspaper	70	16.1	83	19.1
Social media tools (Facebook, WhatsApp, Instagram, etc.)	351	80.9	367	84.6
Internet (Yandex, Google, etc.)	308	71	321	74
Other	11	2.5	14	3.2
The most frequently referenced health institution				
University Hospital	57	13.1	39	9.0
Hospitals belonging to the Ministry of Health (State hospital, Sample hospital, Training and research hospital, etc.)	171	39.4	104	24.0
Oral and dental health centre/ hospital	25	5.8	8	1.8
Private Hospital	68	15.7	79	18.2
Family Health Centre	101	23.3	97	22.4
Pharmacy	12	2.8	29	6.7
I did not go to any health institution after the pandemic			74	17.1
Other			4	0.9

*More than one option has been marked.

The overall Mean Coronovirus-19 Fear Scale of participants is 18.28, and SD = 6.90 (min: 7, max: 35), and it is not high, and the general Mean of Health Perception Scale is 52.41, and SD = 8.04 (min: 28, max: 72) and it can be described. The relationship between scale scores was measured by Pearson Correlation. A low level, negative and significant relationship was found between these variables ($r(432) = -.239$, $p < .01$).

Women had a higher coronavirus-19 Fear scale score, those with any disease had a higher score, those who received regular health checks before the pandemic had a higher score, those who used confirmed medications had a higher score, and those who fulfilled their health needs during the pandemic process had a higher score, and the differences were statistically significant. Perception of Health scale score was higher in those who had a health-related vocational education, in those who had any illnesses, in those who used medicines with a medical report, in those who used drugs continuously, in those who met their health needs during the pandemic process, and the difference was statistically significant ($p < 0.05$) (Table 4).

The coronavirus-19 Fear scale score was higher in those who were married, in postgraduates, in those living in extended families, in those who defined their income as less, and the difference was statistically significant. Perception of Health scale score was higher among those who were single, those who did not have children, and in those who graduated from high school, university and graduate education than those who graduated from primary school, and the difference was statistically significant ($p < 0.05$) (Table 5).

Discussion

Covid-19 detected in China at the end of 2019 has a high transmission potential and its incidence has increased exponentially. It has been accepted as a pandemic by the World Health Organization (WHO) due to its widespread transmission (16). Almost all countries have been affected by the Covid-19 epidemic, which has had a major effect on current healthcare facilities and treatment programs (17). In addition, the pandemic has shown us that public health is the basic service that helps individuals live long and healthy lives (18). It has been shown that the risk of serious illness or death from Covid-19 is exacerbated in person with underlying factors such as advanced age or with chronic conditions (such as diabetes, obesity, hypertension, and cardiovascular diseases) (19). Kumar et al. (2020) found that the presence of underlying diabetes in Covid-19 patients was associated with a two-fold increased risk of mortality and a two-fold increase in Covid-19 severity (20). 15% of the participants in our study had an existing disease, and 17.3% of them used drugs continuously. 98.5% of them had regular health checks before the pandemic in case of existing disease. 76.4% of the people who used drugs continuously continued to use their drugs without making any changes after the pandemic

Table 4: Distribution showing the Comparison of the Participants' Total Scores of Coronavirus-19 Fear and the T-Test Regarding the Total Perception of Health Scores by Variables

Variable		N	CFS				PHS			
			Mean	sd	t	p	Mean	sd	t	p
Age	29 and below	241	17,34	6,56	-3,196	,001	53,60	7,96	3,497	,001
	30 and above	193	19,45	7,14			50,92	7,90		
Gender	Male	90	16,83	6,93	-2,248	,025	52,66	7,82	,331	,741
	Female	344	18,66	6,85			52,34	8,10		
Having a professional education about health	Yes	238	17,97	6,61	-1,048	,295	53,19	7,79	2,248	,025
	No	196	18,66	7,23			51,45	8,25		
Being an active healthcare worker	Yes	117	18,73	7,15	,817	,414	51,80	8,45	-,948	,344
	No	317	18,12	6,80			52,63	7,88		
Presence of any disease	Yes	65	20,15	6,96	2,387	,017	50,37	8,38	-2,225	,027
	No	369	17,95	6,85			52,76	7,93		
Status of regular check-ups before the pandemic	Yes	115	19,76	7,36	2,044	,042	51,94	8,75	-,034	,973
	No	125	17,90	6,74			51,98	8,14		
Status of reported drug use	Yes	56	20,23	6,59	2,280	,023	50,27	7,97	-2,141	,033
	No	378	17,99	6,90			52,72	8,01		
Status of continuous medication use	Yes	75	19,51	6,37	1,696	,091	50,15	8,03	-2,695	,007
	No	359	18,03	6,98			52,88	7,97		
Living within easy reach of a health institution	Yes	401	18,30	6,90	,191	,849	52,52	8,07	1,000	,318
	No	33	18,06	6,88			51,06	7,60		
Meeting the health needs during the pandemic process	Yes	186	19,44	6,95	3,064	,002	50,83	8,14	-3,577	,000
	No	248	17,41	6,74			53,58	7,77		

T-test was used

Table 5: Distribution Showing the Comparison of One Way Anova Test Regarding the Participants' Total Score of Coronavirus-19 Fear and Perception of Health Total Score According to Variables

Variable		N	CFS					PHS				
			Mean	sd	F	p	Diff.	Mean	sd	F	p	Diff.
Marital status	Married	200	19.13	7.54	4.448	.012	1-2	50.55	7.73	10.908	.000	1-2
	Single	221	17.36	6.18				54.12	7.95			
	Other	13	20.85	6.13				51.85	8.33			
Having children	Yes	178	18.99	7.26	4.078	.018	Yok	50.48	7.86	9.561	.000	1-2
	No	254	17.70	6.55				53.79	7.92			
	Pregnant	2	28.50	4.95				48.00	.000			
Education status	Primary school	11	18.82	7.21	3.278	.012	4-5	42.18	6.21	5.979	.000	1-3 1-4 1-5
	Secondary school	5	21.60	10.57				51.60	7.57			
	High school	49	19.08	7.57				50.45	9.50			
	University	309	17.60	6.22				53.07	7.64			
	Postgraduate	60	20.78	8.59				52.53	7.80			
Family type	Nuclear family	339	18.29	6.68	4.306	.005	2-3	52.58	7.87	1.519	.209	None
	Extended family	54	20.41	8.31				50.59	9.37			
	Living alone	38	15.55	5.79				52.95	7.47			
	Other	3	13.33	1.53				58.00	2.65			
Income status	Income is equal to expenses	214	18.00	6.40	5.300	.005	1-2 2-3	52.83	8.46	.616	.540	None
	Income is less than expenses	114	19.95	7.27				52.11	7.68			
	Income is more than expenses	106	17.05	7.16				51.87	7.55			

ANOVA was used. Post Hoc tests Hochberg and Games-Howell were used.

occurred. While the participants went to health institutions before the pandemic to receive health services 1-2 times a month, 51.6% of the participants stated that the frequency of referrals to health institutions decreased after the pandemic by the transformation of hospitals into pandemic hospitals. Rayman et al. (2020) stated that many of the existing services were suspended, the important role played by healthcare professionals specialized in special fields such as diabetes, in preventing harm to people with diabetes both in the hospital and in the community was not taken into account, they were assigned to support treatment services, and the impact of this situation on diabetes services was enormous (21). In addition, not addressing and not solving the barriers to an acceptable level of care and management of patients with non-communicable diseases during the Covid-19 epidemic was a serious public health problem (22). In our study, while the participants needed all kinds of services such as emergency health services, dental health services, follow-up of chronic diseases, preventive health services during the pandemic period, 57.1% of the participants stated that they could not meet the medical care needs of themselves or their children due to Covid-19. People have avoided going to hospitals even for routine check-ups and drug dosage adjustments. However, in the Covid-19 pandemic, efforts were made to effectively apply primary and secondary prevention methods. The pandemic has shown that health services constitute one of the basic needs of society.

According to the latest Health Statistics 2018 data published by the Ministry of Health, the rate of physician applications in 2018 was 34% to primary care and 66% to second and third level health institutions. In addition, the number of applications per capita to hospitals was reported as 4.6 for the ministry of health hospitals, 0.5 for university hospitals, and 0.9 for private hospitals (23). Altınparmak and Yıldırım Sarı (2012) found that 28.6% of children in the 0-6 age group had health problems and 20.8% applied to a health institution. It has been determined that the most chosen institution is public institutions and that all children receive at least one preventive health service. Family Health Centre ranked first with 57.3%, of which 78.1% is the source of continuous maintenance. They discovered that there was a difference between those with congenital diseases and those who did not have congenital diseases in terms of applying to health institutions in the previous six months; on the other hand, they discovered that there was a difference between those who had social security and those who did not have social security in terms of being a permanent source of service (24). In their study, Yaylalı et al. (2012) have found that income, age, marital status, education level, and the number of family members all play a role in healthcare demand. In other words, he has stated that the probability of individuals demanding health services when they get sick is directly proportional to their income, age, and the number of individuals in the family. It has been found that married individuals are less likely to demand health services than singles and secondary school graduates (25). According to the study of Gökkaya and Erdem (2017), individuals prefer health services themselves, except for some compulsory situations. The effects of factors affecting the use of health services vary according to the severity of the disease. Some of the effective factors has been expressed as, in general, individuals' perception of their health, the urgency of the situation, the institution being better, the services being low-cost and under insurance, being fast, being close, the health personnel's good behaviour, being reliable, the adequacy of the technological equipment, the familiar personnel, experience, etc. (26).

It was determined that hospitals affiliated with the Ministry of Health were the most easily accessible and easiest to get service, accounting for 31.8%, while the same hospitals were again the health facilities most avoided after the pandemic, accounting for 41.9%.

In our study, it was determined that after the pandemic, the frequency of access to health news of 71.4% of the individuals increased, and 35.0% of the unmet medical care need was improved by individual efforts (herbal treatment, etc.). In one study, none of the participants reported any acute or severe side effects while consuming herbal products. However, it is stated that it is not known whether these interventions have long-term harmful effects. It has also been used for years and appears to improve a variety of human ailments, but it has been emphasized that there is no systematic monitoring or documentation of expected or unexpected adverse events associated with these agents. It has been pointed out that the use of herbal agents with allopathic drugs given as a standard of care can sometimes lead to the development of unexpected side effects due to the unknown drug weed interaction and may worsen the condition of patients. Appropriate follow-up and laboratory tests of the patients are recommended to evaluate any short/long term organ damage, especially liver and kidney dysfunction. It has also been suggested that Covid-19 itself can cause liver/kidney dysfunction (27). Another study showed that although the efficacy of complementary medicine against Covid-19 has not yet been proven (28–30), potentially serious side effects not only in critically ill patients but also in patients with mild clinical disease, they stated that it offers a possible and much-needed window for their use in Covid-19 treatment. Complementary medicine was envisioned as a complement to, rather than a replacement for, modern medicine. It was emphasized that integrated therapy could be clinically more effective and reduce the patient's suffering in terms of both time and severity. It was stated that the Covid-19 patients were successfully treated with the integration of western medicine and traditional Chinese medicine. It has also been suggested that it can be used as a prophylactic medical resource against disease, particularly in the high-risk population by boosting immunity, blocking infection, stopping the inflammatory storm, and promoting body repair (28). Risk communication for public health emergencies includes the

communication capabilities required throughout the preparedness, response, and recovery phases of a serious public health incident to encourage informed decision making, positive behaviour change, and maintenance of trust (31). In the study of Charan et al. (2021), 74.1% of the participants did not use any complementary and alternative medicine products or home remedies, while 25.8% used complementary and alternative medicine products and home remedies during and after treatment (27).

The increasing number of cases and deaths reported in connection with the Covid-19 outbreak has created a tangible fear among people due to the threat to public health (32). However, due to the possibility of cultural and social differences in responses to a pandemic, it is likely to differ from country to country (33). Perception of health is subjective evaluations of how people feel (34). In our study, those aged 30 and over experienced more fear of Covid-19, while those aged 29 and under had a higher perception of health. In addition, 15.2% of the participants caught coronavirus during the period of the study. It was determined that 54.5% of those who got coronavirus were 29 years and younger, and 45.5 were 30 years and over. In the study of Hotar et al. (2020), which examined the distribution of Covid-19 cases by age groups, they found that it was approximately 16% of people aged 29 and under, and approximately 84% of people aged 30 and over (35). This contrasts with the results of our study in terms of the prevalence of the disease by age groups. This situation can be attributed to the fact that the fear of getting the disease increases as the age gets older and the reaction of the society may differ.

Women are more afraid of Covid-19 than men. This may be due to the difference in risk perception between genders. Hotar et al. (2020) found that gender is not a direct determinant in terms of the risk of contracting the Covid-19 virus (35). Tsang et al. (2021) have found that women are generally more worried than men about getting sick from Covid-19 (36). In the study of Brug et al. conducted during the SARS (severe acute respiratory syndrome) epidemic, the fact that women have a higher risk perception compared to men (37) is in line with our study in terms of the reactions of the sexes in the pandemic situation. There was no statistically significant difference between the genders in terms of perception of health. Bostan et al. (2020) determined in their study that female participants were more careful about the Covid-19 outbreak than male participants (38), and this is parallel to our study as it may cause fear of Covid-19 to live more intensely.

Health literacy is important in demonstrating the correct health behaviours concerning health problems and in the formation of community reactions in the event of an epidemic (39). While Covid-19 does not affect the fear of individuals who have a health-related professional education, their perception of health was found higher. However, being a health worker and living within easy reach of a healthcare institution does not affect the fear of Covid-19 or the perception of health. Hotar et al. (2020) revealed in their study that 22.9% of healthcare workers were infected with the Covid-19 virus (35). This situation may be related to health literacy, that is, it can be attributed to both encountering more cases and knowing the methods of protecting themselves from illness since they have health knowledge

In a pandemic, fear increases anxiety and stress levels in healthy individuals (16). While individuals with any disease have a higher fear of Covid-19, those without the disease have a higher perception of health. Those who had regular health checks before the pandemic had higher fear of Covid-19, while their perception of health did not change. While the fear of Covid-19 was higher in those who used reported drugs, the perception of health was higher in those who did not use reported drugs. Likewise, the fear of Covid-19 is higher in those who use drugs continuously, while the perception of health is higher in those who do not use drugs continuously. Similarly, another situation is that while fear of Covid-19 was higher in those who met their health needs during the pandemic process, the perception of health was higher in those who did not. Participants may be worried about not maintaining regular health checks during the pandemic period due to the presence of a disease, since having a disease negatively affect the perception of being healthy in participants, and those who took the reported drug may also have more fear in terms of progression as the risk of developing Covid-19 disease was also high due to chronic disease, maybe because those who met their health needs were more aware of the consequences of the disease and the risks, and the higher perception of the health of those who did not meet their health needs may be due to their higher awareness of staying healthy.

Tsang et al. (2021) found that those who were married or living together were more concerned about being infected with Covid-19 than those who were single, divorced, separated, or widowed in their study. Interestingly, individuals with more children at home have also found that they or household members are less concerned about getting sick from Covid-19, although it has been reported recently that individuals aged 20 or younger are about half the likelihood of contracting the virus (36). In our study, while married people have a higher fear of Covid-19 than singles, single people have a higher perception of health than married ones. The fact that married people have more fear is parallel to our study, but there are probably cultural differences. It can be explained by the fact that married people have children, that is, they feel more responsive due to the higher number of individuals living in the house. The higher perception of the health of singles may be resulting from the fact that singles are able to devote more time to themselves and more time and money to their health, as they have fewer responsibilities than married ones.

Although Turkish society did not react with hypersensitivity to the epidemic, it did not remain indifferent (38). In our study, whether or not having a child does not statistically and significantly affect the

fear of Covid-19, while those who do not have children have a higher perception of health than those who have children. In the study of Brug et al. about the SARS epidemic, they found that less educated people were more concerned about the disease (37). However, in our study, the fear of Covid-19 is higher than those with a graduate education level, and the perception of the health of primary school graduates is lower than high school, undergraduate, and graduate graduates. This situation can be explained by health literacy. While individuals with extended family types have higher fear of Covid-19 than individuals living alone, there is no statistically significant difference between groups in terms of perception of health. Extended family members may be afraid of transmitting the disease to other family members. Continuous media coverage of the increasing number of infected cases and related deaths may instil fear associated with the new virus.

Covid -19 fear is associated with decreased physical and environmental well-being. Usually, fear and anxiety have a functional role and are associated with increased adaptation to improve the well-being of the public (40). The fear of Covid-19 is higher for those who describe income as less than expenses than those who consider income equal to expenses and income more than expenses. The difference between the groups in terms of perception of health is not statistically significant. The fear of Covid-19 among those whose income is inadequate may be due to the possibility of financial loss in the event of illness.

The limitations of this study are that it was filled in by people who had a smart mobile phone and had the ability to fill in an online questionnaire, since it was applied online, and that probabilistic sampling methods could not be used.

Conclusion

Fear is an adaptive emotion that serves to deal with potential threats. Participants' fear of Covid-19 is less than expected. However, when fear is not well adjusted to the real threat, it can be mismatched. Based on this, although most of the health services are allocated for pandemic services, more than half of the people have not been able to meet the health care needs they need, although all other services continue to be provided. In addition, people's perception of health is above what is expected. Therefore, people cannot be expected to adapt better to the measures.

In conclusion, this study revealed that;

- It has been seen during the pandemic period that health services are a basic need of society.
- Although most of the health services were allocated for pandemic services, more than half of the people could not meet the health care needs they needed, although all other services continued to be provided.
- In addition, people avoided going to hospitals even for routine check-ups and drug dosage adjustments. However, in the Covid-19 pandemic, preventive health services were tried to be implemented effectively.
- Government should continue to effort with sustainable strategies, policies, and practices by ensuring their participation in their community to achieve success with the measures taken in the fight against the epidemic.

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