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ORIGINAL ARTICLE

Impact of Fear due to the COVID-19 Pandemic and Level of Compliance in Preventive Precautions on the Status of Home Health Care Services Utilization and Attitudes on Home Care

COVID-19 Pandemisi Nedeniyle Yaşanan Korku ve Önlemlere Uyum Düzeyinin Evde Sağlık Hizmetlerine Başvuru Durumu ve Evde Bakım Hizmetleri Tutumuna Etkisi

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ABSTRACT

Background/Aims: To determine the impact of the fear of the society due to the COVID-19 pandemic and the level of compliance in preventive precautions on the status of home health care services utilization and the attitudes of home care services.
Material and Methods: This study was cross-sectional and administered through a web-based survey. The present study focuses on the 5,467 participants' responses. "Fear of COVID-19 Scale" was used to determine the fear of COVID-19 and "Attitude Scale for Home Care" to determine the attitude towards home care services on individuals.
Results: Higher levels of COVID-19 fear have a positive effect on the attitude toward home care and significantly explained receiving more home health care services. Participants' compliance level with precautionary behavior practices or preventive measures related to COVID-19 had a direct effect on their attitude for home care. However, higher compliance level with precautionary behavior practices or preventive measures related to COVID-19 have a negative effect on the receiving home health care services.
Conclusions: Our results showed that it is possible to improve the attitude for home care by promoting compliance level with precautionary behavior practices or preventive measures.

Keywords: COVID-19, Fear, Home Care, Home Health Care, Pandemics

ÖZ

Amaç: Toplumun COVID-19 pandemisi nedeniyle yaşadığı korkunun ve belirlenen önlemlere uyum düzeyinin evde sağlık hizmetlerine başvuru durumlarına ve evde bakım hizmetleri tutumlarına etkisini değerlendirmektir.
Gereç ve Yöntem: Bu çalışma kesitsel bir çalışmadır ve web tabanlı bir anketle uygulanmıştır. Mevcut çalışma, 5467 katılımcının yanıtlarına odaklanmaktadır. COVID-19 korkusunu belirlemek için "COVID-19 Korku Ölçeği" ve bireylerin evde bakım hizmetlerine yönelik tutumlarını belirlemek için "Evde Bakım Hizmetleri Tutum Ölçeği" kullanılmıştır.
Bulgular: COVID-19 korkusunun yüksek düzeyleri, evde bakım hizmetlerine yönelik tutum üzerinde olumlu bir etkiye sahip olup, daha fazla evde sağlık hizmeti alınmasını önemli ölçüde açıklamaktadır. Katılımcıların COVID-19 ile ilgili önleyici davranış uygulamaları veya tedbirlere uyum düzeyleri, evde bakım hizmetlerine yönelik tutumları üzerinde doğrudan bir etkiye sahipti. Ancak, COVID-19 ile ilgili önleyici davranış uygulamaları veya önlemlere uyum düzeyinin yüksek olması, evde sağlık hizmeti alma üzerinde olumsuz bir etkiye sahiptir.
Sonuç: Bulgularımız, önleyici davranış uygulamaları veya önlemlere uyum düzeyini teşvik ederek evde bakım hizmetlerine yönelik tutumu iyileştirmenin mümkün olduğunu göstermiştir.

Anahtar Kelimeler: COVID-19, Korku, Evde Bakım, Evde Sağlık Bakımı, Pandemi

Introduction

Accessibility of primary health care services by the entire society and wide-spreading the scope and quality of services are extremely important, especially during the pandemic. However, it has been observed that the COVID-19 pandemic has seriously affected primary health services globally, especially in countries with limited resources, and the utilization of primary health services has been partially or completely disrupted (1, 2). The rapid spread of infection among healthcare professionals has hampered the capacity of healthcare systems to respond to COVID-19 patients (1). In this process, the focus of home health care services in providing services to chronic diseases, hospice, or disabled individuals has changed to include infectious diseases and the whole society with the COVID-19 pandemic. It has come to the fore as an alternative solution to effectively alleviate the pandemic burden in the early phase of the pandemic (3). However, home care providers have had to rapidly develop innovative solutions that provide situational (recruitment from different service sectors such as social media, hospitality, tourism, etc.), structural (e.g., facilitating outdoor concerts and performances in response to patients' need for activation), and systemic (e.g., infection monitoring software) flexibility using existing resources (4). New home health care models have been

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rapidly adopted, covering the preparation, training, and payment structure of multi-sectoral logistics support such as telehealth interventions that support with telephone, automatic scanning algorithms, safety or security systems in the implementation of administrative measures and sanctions, basic food support of municipalities, communication and support systems, supply of adequate medical equipment, supplies and personnel, etc. (3).

Although individual differences in compliance and non-compliance with pandemic measures vary according to several factors, including personal, social, cultural, mental, and economic variables, one of the strongest factors in persuading to comply with preventive rules is fear (5). In the acute period of the pandemic, it was observed that many individuals resorted to functional (migration from city to village or going to holiday areas, using traditional and complementary medicine practices, reporting those who do not comply with quarantine rules to the police, praying, etc.) and dysfunctional (caring about their own health but not caring about the health of others, suicide cases due to extreme fear or restrictions resulting from pandemic measures, etc.) psychosocial coping styles with feelings of fear, anxiety, and panic (6). Although anxiety and fear that people experience due to the increasing number of COVID-19-related cases and deaths, and quarantine practices globally and regionally, have decreased with the availability of the vaccine and the decrease in the number of deaths, people still do not feel completely safe due to vaccine hesitancy and non-compliance with preventive measures (1, 7). High case-fatality rates due to COVID-19 among home care patients in connection with old age and comorbid diseases have caused patients, their families, and caregivers tend to be more cautious (8). In a study with Massachusetts home health and home care agency managers, most agencies (98.7%) reported that they experienced a decrease in demand for home visits during the COVID-19 pandemic (9). Moreover, another study emphasizes that eliminating or reducing access to services during the pandemic greatly affected home care clients and their caregivers and left them vulnerable (10). However, according to the statements made by the Ministry of Health in Türkiye, there has been an upsurge of 500% in applications made to the Home Health Services Communication Center to receive home care services in the first days of the pandemic (11). This study aimed to evaluate the impact of fear experienced by society due to the COVID-19 pandemic and the level of compliance with preventive precautions on the status of home health care services utilization and attitudes to home care services.

Research questions

- What is the level of fear that society is experiencing due to the COVID-19 pandemic?

- What is the compliance level of the society with the precautionary behavior practices or preventive measures determined due to the COVID-19 pandemic?

- How is the status of receiving home health care services and attitudes toward home care of society due to the COVID-19 pandemic?

- What variables affect society's attitudes toward home care and their fear levels of COVID-19?

Materials and Methods

Study design and setting

This study was conducted in a cross-sectional design. We recruited adults aged 18 years and over between November 2020 - May 2021 through a cross-sectional web-based survey using Google Forms in Türkiye. The highest number of COVID-19 cases and deaths reported daily in Türkiye during the study were 63,082 and 394, and the lowest number of cases and deaths were 5,277 and 62, respectively (12).

Participants

For this study, participants were eligible if they were literate, aged 18 years or older, currently living in Türkiye, and agreed to participate. Sample size calculation was not made at the beginning of the study. A total of 5,598 responses were received using the snowball and chaining method. We excluded 131 participants for being aberrant responses (n = 16; 0.28%), outliers data (n = 48; 0.85%), and not meeting the eligibility criteria (n = 67; 1.19%). The final analysis included 5,467 participants. The posthoc power analysis, obtained for the sample size, was performed using the online calculator ClinCalc (available at https://clincalc.com/stats/samplesize.aspx, accessed on 02/09/2021). The posthoc power analysis was performed to assess the power of the study to detect significant differences concerning the primary outcome measure, attitude toward homecare, between compared the subgroups diagnosed or not diagnosed with COVID-19 and subgroups receiving home healthcare services or not receiving during the COVID-19 pandemic. The study's

power to discriminate differences in both subgroups was high (88.3% and 93.7%, respectively).

Procedure and data-collection

Within the scope of the study, the web-based survey link prepared on Google Forms with an information sheet and informed consent form open to everyone's access was shared from and put through some social networking sites such as Facebook, Instagram, and various WhatsApp groups. Individuals were invited to participate in the study by a link to the web-based survey. The web-based survey was fully anonymous and voluntary. Respondents were asked to consent to participate and were not provided incentives to complete the web-based survey. The study was conducted following the principles of the Declaration of Helsinki.

Covariates

Demographic data included age, gender, education level, family income (Income higher than the expense, Income lower than the expense, Income equal to expense), and the region they resided in Türkiye was collected. Health status data, which include any diagnosed chronic disease, the presence of any chronic prescription medication use, and the status of the being diagnosed with COVID-19 who was a participant or one of his/her family, were collected. Participants were asked to indicate if they applied for health or home care services for themselves or a relative during the pandemic. Participants' precautionary behavior practices were measured with 21 statements with only one negative. Of them, 14 statements contained preventive measures against COVID-19, which were prepared by the Ministry of Health (13). The other statements were related to personal hygiene practices, social-distancing measures, using personal protective equipment, etc. Also, the types of masks they used against COVID-19 were measured.

Outcome variables

The Fear of COVID-19 Scale developed by Ahorsu et al. (2020) was used to determine the fear of COVID-19 in evaluating the psychological effects of COVID-19 on individuals. The reliability and validity of the Turkish version of the scale were established by Satıcı et al. (2020). It is a unidimensional scale consisting of 7 items. It has a 5-point Likert-type answer option that changes from "(1) Strongly Disagree" to "(5) Strongly Agree". The lowest score that can be obtained from the scale is 7, and the highest score is 35. Higher scores obtained from the scale indicate more fear. Cronbach's Alpha value was .84 in the original study for the scale (14). Cronbach Alpha value for this study was .88.

The Attitude Scale for Home Care (ASHC) developed by Duru, Örsal and Karadağ (2015) was used to determine the attitude toward home care services individuals. The scale consists of 3 subdimensions, named as "Attitudes towards transpersonal caring relationships between home care team and patient", "Attitudes towards support experienced in home care", and "Attitudes towards comparing hospital health care and home care", and 29 items. It has a 5-point Likert-type answer option that changes from "(1) Strongly Disagree" to "(5) Strongly Agree". The lowest score that can be obtained from the scale is 29, and the highest score is 145. Higher scores obtained from the scale indicate positive attitudes towards home care services. Cronbach's Alpha value was .93 in the original study for the scale (15). Cronbach Alpha value for this study was .95.

Statistical analysis

The collected data from Google drive was converted to a Microsoft Excel file, and statistical analyses were performed using SPSS (version 25.0). Before starting the analysis, a complete data set was created by assigning the data set average for missing data. The percentage of missing data in the data set was <1‰ (n = 13). Outliers were checked using boxplot and z scores. Z scores greater than +3 or less than -3, that was, multivariate outliers (n = 48) were identified in the data set. Data containing outliers (n = 48) was deleted from the data set. Skewness and kurtosis coefficients of scale scores were checked as the assumption of normality, and it was found that skewness and kurtosis coefficients were between -1 and +1, and their absolute values were not greater than twice their standard errors. Descriptive statistics were used to describe the sample, including means and standard deviations (SD) for continuous variables and frequency distribution and percentages for categorical variables. Statistical analysis of the data was assessed by using a t-test, one-way analysis of variance (ANOVA) test, Pearson Correlation test, and Structural Equation Model (SEM). The statistical significance level was taken as $p < .05$.

Results

Participants

The present study focuses on the 5,467 participants'

responses. In the study group, 62.7% (n = 3,429) were female, and the mean age was 28.14 ± 10.77 (min.18.00, max. 89.00) years. The majority of participants had a higher education level (56.6%), had an income equal to expense (58.4%), and lived in the Central Anatolia region in Türkiye (39.2%). Most participants had no chronic diseases (89.6%) or any chronic prescription medication use (85%). In addition, 33.6% of the participants had been diagnosed with COVID-19 or had a family member previously diagnosed with COVID-19.

The level of fear that society was experiencing due to the COVID-19 pandemic

Participants' mean COVID-19 fear score was 19.18 ± 6.51 (median 19.00, min 7.00, max 35.00). The distribution of the mean of the participants' fear of COVID-19 by some sociodemographic characteristics and some precautionary behavior practices were presented in Table 1 and Table 2, respectively.

Table 1. The distribution of the mean of the participants' fears of COVID-19 and attitude for homecare scores by some related socio-demographic characteristics

Variables	n	The fear of COVID-19		The attitude for home care	
		Mean ± SD	t / F; p	Mean ± SD	t / F; p
Gender					
Female	3429	19.22±6.42	.572; .567	113.60±17.93	-.145; .885
Male	2038	19.12±6.67		113.677±17.95	
Age group					
18-25 (1)	3464	19.13±6.51		113.20±18.10	
26-30 (2)	595	19.29±6.50	.369; .692	113.67±17.73	3.312; **.037**
≥ 31 (3)	1408	19.28±6.53		114.66±17.59	
Pairwise comparison*				3 > 1	
Education level					
High-school or lower	2085	19.25±6.57	.602; .547	114.07±18.24	1.453; .146
Associate degree or higher	3382	19.14±6.47		113.35±17.74	
Family income					
Income lower than expense	1168	19.58±6.50		113.12±17.57	
Income equal to expense	3192	19.04±6.54	2.923; .054	113.61±18.02	1.070; .343
Income higher than expense	1107	19.18±6.43		114.22±18.07	
Chronic disease					
No	4899	19.15±6.51	-1.212; .225	113.53±17.97	-1.142; .253
Yes	568	19.50±6.53		114.44±17.60	
Regular use of medication					
No	4648	19.18±6.50	-.209; .834	113.72±17.89	.916; .360
Yes	819	19.23±6.60		113.10±18.18	
Being diagnosed with COVID-19 herself/himself or a family member					
No	3631	19.05±6.59	-2.207; **.027**	114.17±17.89	3.145; **.002**
Yes	1836	19.45±6.35		112.55±17.98	
Delaying the application to the hospital as much as possible due to any illness other than COVID-19 during the pandemic					
No	3101	19.27±6.45	1.114; .265	113.50±18.01	-.568; .570
Yes	2366	19.07±6.60		113.78±17.84	
Delaying the application to the family doctor as much as possible due to any illness other than COVID-19 during the pandemic					
No	4099	19.27±6.59	1.789; .074	113.34±18.13	-2.059; **.040**
Yes	1368	18.91±6.58		114.49±17.33	
Receiving home health care services for herself/himself or a relative during COVID-19 pandemic					
No	5016	19.07±6.49	-4.438; **.000**	113.91±17.69	3.479; **.001**
Yes	451	20.49±6.65		110.47±20.27	
Receiving home health care services before the COVID-19 pandemic					
No	5258	19.15±6.51	-1.924; .054	113.64±17.92	.348; .728
Yes	209	20.03±6.39		113.20±18.25	
Preferring to receive home health care services instead of applying to the hospital or family doctor during the COVID-19 pandemic					
No	4207	19.20±6.48	.340; .734	113.69±18.01	.407; .615
Yes	1260	19.13±6.62		113.40±17.70	
Thinking that home health care services should be widespread					
No	2509	19.11±6.45	-.766; .444	113.59±18.13	-.113; .910
Yes	2958	19.25±6.56		113.65±17.78	
Total	5467	19.18±6.51		113.62±17.94	

*Scheffe test

The level of compliance of society with the precautionary behavior practices or preventive measures due to the COVID-19 pandemic

While 0.3% (n=18) of the participants stated that they complied with all precautionary behavior practices or preventive measures (n=21), 0.03% (n=2) of them reported that they complied with none of them. Of the participants, 3.1% (n=171) reported that they did not comply with any precautionary behavior practices or preventive measures related to masks, 3.4% (n=187) distance, and 0.3% (n=14) hygiene. Of the participants, 7.8% (n=411) who stated that they comply with any preventive measures related to

Table 2. The distribution of the mean of the participants' fears of COVID-19 and attitude for homecare scores by some precautionary behavior practices or preventive measures

Variables	n	The fear of COVID-19		The attitude for home care	
		Mean ± SD	t / F; p	Mean ± SD	t / F; p
Individual-level compliance with social distancing rules (minimum distance of 1,5 metres / 3 feet)					
No	631	18.27±6.53	-3.744; **.000**	107.95±17.44	-8.502; **.000**
Yes	4836	19.30±6.50		114.36±17.87	
Wearing a mask when going out or in crowded environments					
No	439	18.30±7.06	-2.761; **.006**	106.11±21.18	-7.853; **.000**
Yes	5028	19.26±6.46		114.28±17.47	
Using the mask to fully cover the mouth and nose					
No	445	17.60±7.03	-4.994; **.000**	105.81±20.66	-8.419; **.000**
Yes	5022	19.32±6.44		114.32±17.51	
Using a face shield					
No	5004	19.09±6.41	-2.951; **.003**	113.43±17.85	-2.645; **.008**
Yes	463	20.15±7.41		115.78±18.69	
Cleaning hands frequently with hand sanitizer or products containing at least 70% alcohol					
No	1534	17.64±6.61	-10.883; **.000**	110.72±18.66	-7.298; **.000**
Yes	3933	19.79±6.37		114.76±17.52	
Using gloves when going out or touching something while shopping					
No	4326	18.81±6.35	-8.010; **.000**	113.32±17.81	-2.416; **.016**
Yes	1141	20.62±6.90		114.77±18.38	
Reusing the mask by washing or disinfecting					
No	4688	18.97±6.46	-5.846; **.000**	113.37±17.85	-2.567; **.010**
Yes	779	20.44±6.68		115.15±18.36	
Washing hands frequently by rubbing with soap and water for at least 20 seconds.					
No	1154	17.92±6.79	-7.172; **.000**	108.49±19.05	-10.488; **.000**
Yes	4313	19.52±6.39		115.00±17.37	
Keeping at least 3-4 steps distance from people who have symptoms of a cold					
No	2055	18.28±6.55	-8.019; **.000**	109.63±18.31	-12.792; **.000**
Yes	3412	19.73±6.43		116.03±17.27	
To ventilate the environment frequently					
No	1348	18.20±6.68	-6.275; **.000**	108.35±19.02	-12.001; **.000**
Yes	4119	19.50±6.42		115.35±17.22	
Washing clothes at 60-90 degrees with normal detergent					
No	2606	18.40±6.33	-8.572; **.000**	110.56±18.23	-12.229; **.000**
Yes	2861	19.90±6.59		116.42±17.20	
Going to a health facility by wearing a mask for complaints in such as fever, cough, and shortness of breath					
No	2072	18.41±6.61	-6.819; **.000**	109.45±18.53	-13.399; **.000**
Yes	3395	19.65±6.40		116.17±17.07	
Covering the mouth and nose with a disposable wipe when coughing or sneezing, or using the inside of the elbow if there is no wipe					
No	1725	18.32±6.64	-6.579; **.000**	109.04±19.22	-12.432; **.000**
Yes	3742	19.58±6.41		115.74±16.90	
Canceling or postponing international travel					
No	4710	19.08±6.44	-3.492; **.001**	113.39±17.75	-2.317; **.021**
Yes	757	19.99±6.89		115.10±19.02	
Cleaning frequently used surfaces such as door handles, armatures, sinks with water and detergent every day					
No	3647	18.41±6.25	-12.314; **.000**	111.92±17.79	-10.070; **.000**
Yes	1820	20.74±6.74		117.05±17.75	

Variables	n	The fear of COVID-19		The attitude for home care	
		Mean ± SD	t / F; p	Mean ± SD	t / F; p
Avoiding close contact, such as handshaking and hugging					
No	1398	18.00±6.76	-7.675; **.000**	109.12±19.45	-10.344; **.000**
Yes	4069	19.59±6.37		115.17±17.12	
If there are cold symptoms, not to contact with the elderly and chronic patients, not to go out without wearing a mask					
No	2075	18.37±6.58	-7.188; **.000**	109.41±18.89	-13.806; **.000**
Yes	3392	19.68±6.42		116.20±16.82	
Avoiding to touch eyes, mouth and nose with hands					
No	2182	18.19±6.47	-9.279; **.000**	109.67±18.25	-13.358; **.000**
Yes	3285	19.84±6.46		116.25±17.23	
Spending the first 14 days at home after returning from an international travel					
No	5172	19.13±6.47	-2.512; **.012**	113.59±17.80	-.483; **.630**
Yes	295	20.18±7.07		114.17±20.24	
Not sharing any personal belongings (daily items such as towels)					
No	2543	18.77±6.50	-4.428; **.000**	111.31±18.49	-8.929; **.000**
Yes	2924	19.55±6.50		115.64±17.19	
Consuming plenty of fluids, eating a balanced diet and paying attention to sleeping patterns					
No	2383	19.24±6.41	.613; .540	110.71±18.41	-10.590; **.000**
Yes	3084	19.14±6.59		115.88±17.23	
Total	5467	19.18±6.51		113.62±17.94	

the mask reported that they received home health care services during the COVID-19 pandemic, 7.8% (n=410) related to distance, and 8.3% (n=450) related to hygiene. Overall, the findings indicated that 92% of the participants used medical or surgical masks, 8.9% used nano masks, 8.8% used N95, 4.6% used the mask they made at home on their own, 4.1% used FFP1, 3.2% used FFP2, 3% used FFP3, 0.7% used N99, and 0.4% used N100. The distribution of participants' precautionary behavior practices or preventive measures were presented in Table 2.

The status of receiving home health care services and attitudes toward home care the society due to the COVID-19 pandemic

While 3.8% of the participants received home health care before the COVID-19 pandemic, 8.2% applied for home health care services for themselves or a relative during the COVID-19 pandemic (Table 1). Most participants (54.1%) reported that home healthcare services should be widespread. The mean of attitudes on home care score of participants was 113.62 ± 17.94 (median 114.00, min 56.00, max 145.00).

The variables that affect the attitudes toward home care the society and their fear levels of COVID-19

Participants being diagnosed with COVID-19 themselves or a family member had higher levels of COVID-19 fear ($p < .05$; Table 1) and less positive attitudes towards home care ($p < .001$; Table 1) than others. Participants receiving home health care services for themselves or a relative during the COVID-19 pandemic had a higher level of COVID-19 fear than those who had not received any ($p < .000$; Table 1).

Except for consuming plenty of fluids, eating a balanced diet, and paying attention to sleeping patterns, the participants who adhered to all precautionary behavior practices or preventive measures related to COVID-19 had more fear of COVID-19 (for each, $p < .05$; Table 2). Moreover, except for the variable of spending the first 14 days at home after returning from an international trip, the participants who adhered to all precautionary behavior practices or preventive measures related to COVID-19 had more positive attitudes towards home care services (for each, $p < .05$; Table 2). Although it is an undesirable behavior, it is also noteworthy that participants who reused their masks by washing or disinfecting had more fear of COVID-19 and positive attitudes towards home care services (for each, $p < .05$; Table 2).

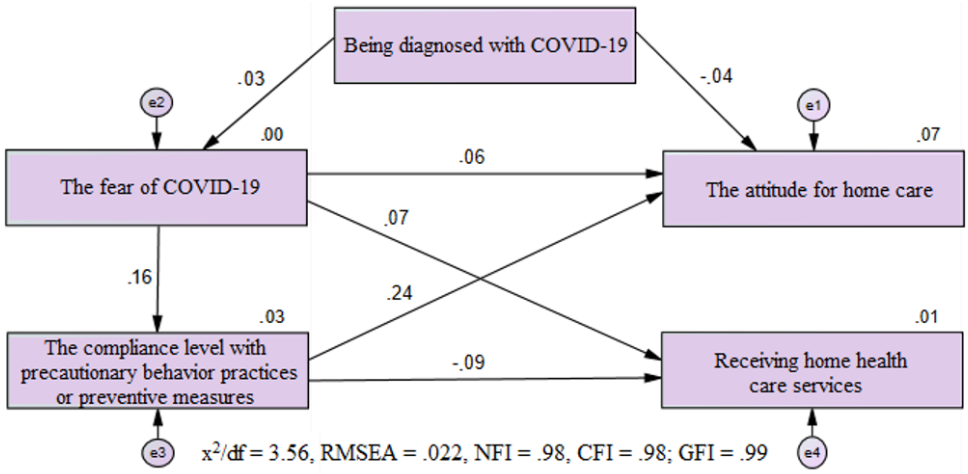
As the participants' COVID-19 fear levels increased, their positive attitudes towards home care services increased, receiving home health care services increased, and their compliance levels with precautionary behavior practices or preventive measures also increased (for each, $p < .001$; Table 3). As the participants' compliance levels with precautionary behavior practices or preventive measures increased, their receiving home health care services decreased, and their positive attitudes towards home care services increased (for each, $p < .001$; Table 3).

Table 3. A table of correlations

Variables	1	2	3	4	5
[1] The fear of COVID-19	1	-	-	-	-
[2] The attitude for home care	.098**	1	-	-	-
[3] Receiving home health care services	.060**	-.053**	1	-	-
[4] The compliance level with precautionary behavior practices or preventive measures	.163**	.250**	-.078**	1	-
[5] Age	.015	.020	-.004	.025	1

** p < .001

(β = .075, p < .001). Participants' compliance level with precautionary behavior practices or preventive measures related to COVID-19 had a direct effect on their attitude toward home care (β = .240, p < .001). However, higher compliance levels with precautionary behavior practices or preventive measures related to COVID-19 negatively affect the receiving home health care services (β = -.090, p < .001).



Structural Equation Model			Standardized β	SE	t	p
Being diagnosed with COVID-19	--->	The fear of COVID-19	.029	.187	2.180	.029
The fear of COVID-19	--->	The compliance level with precautionary behavior practices or preventive measures	.163	.009	12.249	< .001
The compliance level with precautionary behavior practices or preventive measures	--->	Receiving home health care services	-.090	.001	-6.633	< .001
The fear of COVID-19	--->	Receiving home health care services	.075	.001	5.480	< .001
The fear of COVID-19	--->	The attitude for home care	.060	.36	4.563	< .001
The compliance level with precautionary behavior practices or preventive measures	--->	The attitude for home care	.240	.055	18.151	< .001
Being diagnosed with COVID-19	--->	The attitude for home care	-.043	.496	-3.267	.001

Figure 1. The results of structural equation model

The SEM model developed in this study showed the associations between the fear of COVID-19, being diagnosed with COVID-19, compliance with precautionary behavior practices or preventive measures, receiving home health care services, and attitude toward home care variables (Figure 1). The fitting indices obtained by the structural equation model were appropriate and overall acceptable (x2/df = 3.56, RMSEA = .022, NFI = .98, CFI = .98, GFI = .99), and all paths were statistically significant in the research model (for each, p < .05; Figure 1 and Table 4). Higher levels of COVID-19 fear positively affect the attitude toward home care (β = .060, p < .001). Moreover, higher levels of COVID-19 fear significantly explained receiving more home healthcare services

Table 4. The fitting indices obtained by structural equation model

Compliance indices	Excellent fit	Good fit	Non-fit	Obtained value	Fit
x^2/df	0-2	2-5	> 5	3.56	Good compliance
RMSEA	0-.05	.05-.10	> .10	.022	Excellent compliance
NFI	.90-1	.80-.90	< .80	.98	Excellent compliance
CFI	.90-1	.80-.90	< .80	.98	Excellent compliance
GFI				.99	Accept

x^2 : Minimum Fit Function Chi-Square ; df :Degrees of Freedom, RMSEA : Root Mean Square Error of Approximation ; NFI: Normed Fit Index ; CFI: Comparative Fit Index; GFI : Goodness of Fit Index

Discussion

It is known that the perception of a high risk of infection in hospitals and the reluctance of healthcare professionals to provide healthcare services due to fear of contamination has led to the fact that the public is reluctant to visit health facilities and receive health care unless necessary, and the pandemic has caused changes in health-seeking behavior (1, 2). In our study, the proportion of participants who stated that they postponed their appointments as much as possible for any illness other than COVID-19 during the pandemic was 43.3%, and the proportion of those who postponed their family doctor appointments was 25%. After taking public health precautions such as wearing a face mask against COVID-19, social distancing, and hand hygiene, the number of people admitted to the hospital due to community-related infectious diseases has greatly decreased (16). In our study, it was observed that compliance with the recommended public health safety measures, such as wearing a face mask (96.9%), social distancing (96.6%), and hand hygiene (99.7%), was high. Moreover, during the pandemic management in Türkiye, those with chronic diseases could obtain their medicines from pharmacies if a consultation was not required. The extension of the duration of drug reports by the Social Security Institution may have played a role in the postponement of appointments, as a positive development that facilitated the short-term lives of patients with chronic and rare diseases.

In our study, fear of COVID-19 positively affected the attitude toward home care, and higher levels of fear of COVID-19 significantly explained receiving more home health care services. However, in a study conducted with Massachusetts Home Health and Home Care agency managers, it was reported that clients cancelled visits due to concern that home care providers would expose them to the COVID-19, and family members assumed direct care tasks that were previously provided by home care providers (9). In Türkiye, there has been a 5-fold increase in the demand for home care services compared to pre-pandemic (11). Of course, this may be because home care services in Türkiye are not yet widespread and participants with a high fear of COVID-19 perceived home care services as safer than hospital admissions due to the risk of infection transmission. Interest in-home care is not influenced by disease cases, except when more detailed medical treatment for cases is needed in hospitals (17). In our study, 3.8% of the participants received home health care before the pre-pandemic, while 8.2% applied to receive home health care for themselves or a relative during the COVID-19 pandemic. Most of the participants (54.1%) reported that they thought home health care should be widespread. The fact that hospital visits are limited due to infection control measures and the rapid restructuring of home health and social services in Türkiye together with COVID-19 may have had an impact on this situation.

Leaving aside the irreversible losses or damages caused by the pandemic to humanity, it is seen that it has several unforeseen positive impacts, such as the willingness and compliance of the society to accept and act on public health messages and increasing self-care and health awareness (16). In our study, it was determined that participants who comply with all precautionary behavior practices or preventive measures related to COVID-19, except for consuming plenty of fluids, paying attention to a balanced diet, and paying attention to sleep patterns, experienced more fear of COVID-19. However, unlike our study, it is stated that individuals who perceive a higher risk of disease may be affected by the psychological effects of anxiety and panic, which is effective in weakening individuals' intentions to act in self-precautionary behavior (18). Even if the COVID-19 disease's risk was perceived as highly severe, it was noted that a high level of anxiety was ineffective in creating behavioral change (19). Similarly, Yıldırım et al. (2021) reported that those with a high fear of COVID-19 were more likely to engage in preventive behaviors (20). Therefore, it can be thought that participants who believed they were vulnerable, perceived a high risk of infection, and had a greater fear of COVID-19, paid more attention to preventive measures. In our study, participants' level of compliance with precautionary behavior practices or preventive measures related to COVID-19 had a positive effect on their attitudes toward home care, while it negatively affected receiving home health care services. These findings may be due to the fact that the belief that home care contributes to COVID-19 measures positively affects attitudes towards home care, while those with high levels of compliance with the measures do not need home care.

The anger of those in quarantine caused by their isolation can turn into violence In our study, participants diagnosed with COVID-19 themselves or a family member had higher levels of COVID-19 fear than others and less positive attitudes towards home

care. Page et al. (2020) reported a greater need for support at-home care during quarantine (21). Attitudes towards home care of participants who themselves or a family member suffered from COVID-19 may have been affected by the following circumstances such as feeling lonely during the isolation process, feeling unsafe at home, thinking that their care needs were too much, and having an unsuitable home environment for care. Much more research is needed on this issue.

Limitations

One of the limitations of this study was that it was self-reported and lacked external observation.

Another limitation was that due to the personal data protection law, the contact information of people receiving home care services had not been shared with researchers. For the research invitation, the fact that these people could not be reached directly may have negatively impacted the representation of the segment receiving home care services in the sample.

Implications for practice and policy

These findings provide implications for public health nurses, home care service staff, other providers, policymakers, and researchers. The community's interest in home care services has increased with the pandemic. More than half of the participants thought home care services should be widespread. Public health nurses can play a key role in launching and regulating the necessary lobbying activities and campaigning by public authorities, local organizations and professional associations for the widespread and support of home care services, which play a complementary and/or supporting role in health and social services during the pandemic. More research is needed to increase the positive attitudes of people with low compliance with preventive measures and low fear of COVID-19 towards home care services. Concerning reaching home care service recipients so that advocacy activities can be carried out based on evidence, it is necessary to assist researchers in conducting more community-based research.

Conclusion

The study's findings showed that participants' mean COVID-19 fear score was 19.18 ± 6.51 and that participants had a moderate level of COVID-19 fear. Compliance with the recommended public health safety measures was high such as wearing a face mask (96.9%), social distancing (96.6%), and hand hygiene (99.7%). While 3.8% of the participants received home health care before the COVID-19 pandemic, 8.2% applied for home health care services for themselves or a relative during the COVID-19 pandemic. Our results showed that it is possible to improve the attitude toward home care by promoting compliance levels with precautionary behavior practices or preventive measures.

Ethical Aspects of the Research

First, permission to use the scales was obtained from the authors who developed the scales used in this study. For the study, the approval of the Ministry of Health Scientific Research Platform dated 25/06/2020, the institutional approval of the Eskisehir Public Health Directorate dated 02/02/2021, and the ethical approval of the Eskisehir Osmangazi University Non-Interventional Clinical Research Ethics Committee dated 14/07/2020 (No:39) were obtained.

Conflict of Interest

The authors have no conflict of interest to declare.

Financial Disclosure

The authors declared that this study received no financial support.

Authors' Contribution

All authors listed meet the authorship criteria according to the guidelines of the International Committee of Medical Journal Editors (ICMJE). P.D., Ö.Ö. and D.B. developed the design of the study, P.D. and D.B. involved in the collection and management of the data. P.D. analyzed the statistical data. P.D. interpreted the results. P.D. drafted the manuscript, and P.D., Ö.Ö. and D.B. critically revised the manuscript for important intellectual content. All authors approved their manuscript of final submitted version.

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References

1.Singh DR, Sunuwar DR, Shah SK, Karki K, Sah LK, Adhikari B, et al. Impact of COVID-19 on health services utilization in Province-2 of Nepal: a qualitative study among community members and stakeholders. BMC Health Serv. Res. 2021;21(1):1-14.

2.Ayele W, Biruk E, Kifle A, Habtamu T, Taye G, Wondarad Y. Patterns of essential health services utilization and routine health information management during COVID-19 pandemic at primary health service delivery point Addis Ababa,

Ethiopia. Ethiop J Health Dev. 2021;35(1):90-97.

3.Örsal Ö, Duru P. Diagnosis, monitoring, treatment and care of COVİD-19 cases at home. In Aksayan S, editor. COVID-19 pandemic and public health nursing. 1st ed. Ankara: Turkey Clinics; 2020. p. 42-49.

4.Lyng HB, Ree E, Wibe T, Wiig S. Healthcare leaders' use of innovative solutions to ensure resilience in healthcare during the COVID-19 pandemic: a qualitative study in Norwegian nursing homes and home care services. BMC Health Serv. Res. 2021;21(1):1-11.

5. Demirtaş-Madran HA. Accepting restrictions and compliance with recommended preventive behaviors for COVID-19: A discussion based on the key approaches and current research on fear appeals. Front. Psychol. 2021;12: 558437.

6.Malak B, Aydın A. Türkiye'de COVID-19'a yönelik ilk psikososyal tepkiler: Bir içerik analizi (Acute psychosocial responses to COVID-19 in Turkey: A content analysis). Turk. J. Fam. Med. Prim. Care. 2021:15(3):581-593.

7.Willis DE, Andersen JA, Bryant□Moore K, Selig JP, Long CR, Felix HC, et al. COVID□19 vaccine hesitancy: Race/ethnicity, trust, and fear. Clin. Transl. Sci. 2021:14(6);2200-2207.

8.Alqahtani AM, Alshahrani FM, Esmail KMM, Rezk SR. Outcome of COVID-19 among homecare patients and its relation to chronic diseases. World Fam. Med. / Middle East J. Fam. Med. 2021:19(4);111-117.

9.Sama SR, Quinn MM, Galligan CJ, Karlsson ND, Gore RJ, Kriebel D, et al. Impacts of the COVID-19 pandemic on home health and home care agency managers, clients, and aides: a cross-sectional survey, March to June, 2020. Home Health Care Manag. Pract. 2021:33(2);125-129.

10.Weeks LE, Nesto S, Hiebert B, Warner G, Luciano W, Ledoux K, et al. Health service experiences and preferences of frail home care clients and their family and friend caregivers during the COVID-19 pandemic. BMC Res Notes. 2021:14(1);1-5.

11.Kronos. (2020, 06.04.2020). Evde sağlık için talepler 10 günde yüzde 500 artı https://kronos34.news/tr/evde-saglik-icin-talepler-10-gunde-yuzde-500-artti/

12.Republic of Turkey Ministry of Health. (2021). COVID-19 information platform. Retrieved 25.09.2021 from https://COVID19.saglik.gov.tr/TR-66935/genel-koronavirus-tablosu.html

13.Republic of Turkey Ministry of Health. (2020). Novel coronavirus disease. (COVID-19). Retrieved 02/09/2021 from https://COVID19bilgi.saglik.gov.tr/tr/

14.Satici B, Gocet-Tekin E, Deniz ME, Satici SA. Adaptation of the fear of COVID-19 scale: Its association with psychological distress and life satisfaction in Turkey. Int J Ment Health Addict. 2021:19; 1980-1988.

15.Duru P, Örsal Ö, Karadağ E. Development of an attitude scale for home care. Res. Theory Nurs. Pract. 2015:29(4);306-324.

16.Hoo HE, Loh HC, Ch'ng ASH, Hoo FK, Looi I. Positive impacts of the COVID-19 pandemic and public health measures on healthcare. Prog. Microbes Mol. Biol. 2021:4(1);1-17.

17.Nugroho C, Suryono BW. The analysis of homecare interest in pandemic COVID-19 period based on disease case in Indonesia. European Journal of Medical and Health Sciences. 2020:2(5);1-3.

18.Wang RN, Zhang YC, Wu RK, Li B, Li CW, Yu BT, et al. A study of self-precaution against the background of the COVID-19 pandemic from the perspective of risk perception attitude theory and social support. BMC Public Health. 2021:21(1);1-12.

19.Can F, Ergül-Topçu A, Topçu, G. Health beliefs in association with behaviors in compliance with COVID-19 public health guidelines: A cross-sectional study. Soc Work Public Hlth 2021;1-14.

20.Yıldırım M, Geçer E, Akgül Ö. The impacts of vulnerability, perceived risk, and fear on preventive behaviours against COVID-19. Psychol Health Med. 2021:26(1);35-43.

21.Page N, Naik V, Singh P, Fernandes P, Nirabhawane V, Chaudhari S. Homecare and the COVID-19 pandemic–Experience at an urban specialist cancer palliative center. Indian J Palliat Care. 2020:26(Suppl 1);63-69.