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Investigation Of Home Healthcare Patients' Attitudes And Behaviours Against Covid-19 Vaccines
Evde Sağlık Hastalarının Covıd-19 Aşılarına Karşı Tutum Ve Davranışlarının İncelenmesi

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Abstract
Introduction: We aimed to find the attitudes and behaviours of home health patients towards COVID-19 vaccines, the rates of vaccination, and the reasons for not getting the vaccine.
Method: This descriptive and cross-sectional study was conducted with patients who were accepted to join this research and reachable (N:1012) registered in the Home Health Services unit of a training and research hospital in Izmir between December 2021 and March 2022. The study was conducted by contacting the patient or their relatives by phone, visiting them at home, or applying a questionnaire during their application to the polyclinic unit. Questionnaire; It consists of 15 questions that help us learn the patient's sociodemographic characteristics, current health status, and attitudes and behaviors about vaccines. The prepared database has entered the IBMSPSS 24.0 program.
Results: The mean age of the participants in the study was 77.4±16.2 years. 68.6% of the participants were women. 63% of them are fully dependent on the bed. In our study, the rate of patients receiving the COVID-19 vaccine was 83.2%. 91.1% of the vaccinated individuals had the Sinovac vaccine, which was first provided to the patients. 66.1% of vaccinated individuals have accessed vaccination services at home. Those who have higher educational levels have higher vaccination rates. Those who received information from their family doctor were significantly more likely to be vaccinated. Participants most frequently stated that they were not vaccinated because they thought they did not have enough information about COVID-19 vaccines and were worried about possible side effects.
Conclusion: According to this study, patients registered with Home Care Unit have a high rate of getting the COVID-19 vaccine.
Keywords: COVID-19 Vaccines, Home Care Unit Patients, Vaccine Rejection

Özet
Giriş: Bu çalışma, Evde Sağlık hizmeti verilen hastaların COVID-19 aşılarına karşı tutum ve davranışlarını saptamak ve aşı yaptırma oranlarını bulmak amacıyla yapılmıştır.
Yöntem: Kesitsel tanımlayıcı tipteki bu çalışma; Aralık 2021-Mart 2022 tarihlerinde İzmir'de bulunan bir eğitim ve araştırma hastanesi Evde Sağlık Hizmetleri birimine kayıtlı olup ulaşılabilen ve çalışmayı kabul eden hastalar (n:1012) ile yapılmıştır. Çalışma, hasta veya hasta yakınlarına telefon ile ulaşılarak, evinde ziyaret edilerek ya da poliklinik birimine başvuruları sırasında anket uygulanarak yapılmıştır. Anket; hastanın sosyodemografik özelliklerini, güncel sağlık durumunu ve aşılar hakkında tutum ve davranışlarını öğrenmemize yardımcı olan 15 sorudan oluşmaktadır. Sonuçlar IBMSPSS24.0 istatistik programı ile analiz edilmiştir.
Bulgular: Katılımcıların yaş ortalaması 77,4±16,2 olup, %68.6'sı kadındır ve %63'ü yatağa tam bağımlıdır. Çalışmamızda hastaların COVID-19 aşısını yaptırma oranı %83,2 saptanmıştır. Aşı olan bireylerin %91,1'i hastalara ilk olarak temin edilen Sinovac aşısını yaptırmıştır. Aşı olan bireylerin %66,1'i evlerinde aşı hizmetine ulaşmışlardır. Eğitim düzeyi yüksek olanların aşı olma oranı istatistiksel olarak daha yüksek tespit edilmiştir. Aile hekiminden aşı ile ilgili bilgi alanların aşı yaptırma oranı anlamlı şekilde yüksektir. Katılımcılar en sık, COVID-19 aşıları ile ilgili yeterli bilgileri olmadığını düşündüklerinden ve olası yan etkilerinden endişe ettiklerinden aşı olmadıklarını belirtmişlerdir.
Sonuç: Evde Sağlık Hizmetlerine kayıtlı hastaların COVID-19 aşısını yaptırma oranı yüksek bulunmuştur
Anahtar Kelimeler: Aşı reddi, COVID-19 Aşıları, Evde Sağlık Hastaları

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Introductıon

Home Health Care Services (HHCS) is a service that includes general health and social services in many countries, especially in developed Western countries. According to the characteristics of the general health and social service systems of the countries, this service is provided by public institutions, private or voluntary organizations. Primary, secondary, and tertiary healthcare institutions establish organizations to provide home care services.[1] Home Health Care is the provision of multiple health and social services at a professional level in the place where the person lives to regain their health, improve it and protect it against complications that may develop in the future, for individuals with permanent or temporary disability, who need home treatment after discharge, or who are in the terminal period.[2] The service includes prescribing drugs documented with a health report in cases where individuals have drugs that need to be used for a long time, prescribing medical devices and materials, informing about the disease, care process, responsibilities of the patients and their families, and educating about the disease and home care.[3]

In December 2019, a pneumonia epidemic caused by a new type of coronavirus started in Wuhan city of Hubei province of China then spread to many countries in the world and was defined as a pandemic in February 2020. The first case in our country was detected on March 11, 2020.[4] Although almost all groups of society were affected by the pandemic, people over a certain age had the disease more severely or died due to this disease. To end the pandemic immediately and return to normal life, vaccination studies have started in many countries. In the first months of 2021, many countries have started mass vaccination to end the COVID-19 pandemic. Some vaccines (Pfizer-BioNTech, Sinovac, Moderna) have been approved in some countries for use as of December 2020. Sinovac (Coronavac) vaccine was approved for emergency use in Turkey on January 13, 2021, and the first vaccination in Turkey started on January 13, 2021. On January 27, 2021, the Sinovac vaccine was started to be administered in the home environment of patients through Home Health Services.[5] Health teams were built to vaccinate home health patients over the age of 65 at their homes. Only the Sinovac vaccine was administered to people who accepted to be vaccinated by the filiation teams and the Home Health Services teams. Then the Pfizer/BionTech mRNA vaccine was also started to be used in our country but not implemented at home due to storage(-60 to -80 ºC) and transport difficulties[6].

This study was conducted to determine the attitudes and behaviors towards COVID-19 vaccines and to find the vaccination rates of patients registered with Home Health Care Services, who are in the priority group and are likely to be affected by the COVID-19 pandemic.

Method

This descriptive and cross-sectional study was conducted in a training and research hospital in Izmir between December 2021 and March 2022. Permission for the study was received from the Ministry of Health and ethical approval was obtained from the clinical research ethics committee of the relevant training and research hospital (Decision number: 2021 / 166). The universe of the study consisted of all patients who were actively registered in the home health services unit of the hospital. There are 4043 registered patients in home health services.1012 patients or their relatives were contacted by phone, visited at home, and during their application to the outpatient clinic, they were informed about the study, and a questionnaire was applied to those who accepted. The questionnaire consists of 15 questions about the sociodemographic data of the patients, their bed dependency, their chronic diseases, and their attitudes and behaviors toward the COVID-19 vaccine. The work started when the vaccine was first applied at home. For this reason, the status of the application of the first dose vaccine was inquired. Information in the patient files was also used during the data collection phase. Information was obtained from the relatives of the patients who could not be contacted due to reasons such as dementia and cerebrovascular disease. IBMSPSS24.0 (Statistical Package for the Social Sciences) statistical program was used in the analysis of the study. Descriptive findings are given as numbers and percentages for categorical variables and mean and standard deviation for numerical variables. The chi-square test was used in the analysis. significance level was accepted as $p<0.05$.

Result

The average age of 1012 participants is 77.4, and 72.8% of them are 75 years old and over. 63% of the study population are bedridden people. 83.2% of the participants were vaccinated against COVID-19. Most of them (91.1%) were vaccinated with Sinovac. 96% of vaccinated people were vaccinated at the time the vaccine was defined for themselves in the system, and about half of the vaccinated later stated that they delayed it because they were waiting for a more reliable vaccine. 55.2% of the vaccines were administered by the vaccination teams at home, 17% at the Family Health Center (FHC), 16.9% at the hospitals, and 10.9% at home by the Home Health Services teams. Side effects occurred in 1.2% of vaccinated people. 1.4% stated that they had hesitation despite being vaccinated (Table 1).

Table1. *Characteristics of participants (n=1012)*

	n	%
Age(Mean±SD)	77.4±16.2	
Age Groups		
18-64	143	14.1
65-74	133	13.1
75-84	344	34
85+	392	38.8
Gender		
Female	694	68.6
Male	318	31.4
EDUCATIONAL STATUS		
No Formal Education	426	42.1
PRIMARY SCHOOL	527	52.1
MIDDLE SCHOOL	31	3.1
HIGH SCHOOL	20	2.0
UNIVERSITY	8	0.8
FUNCTIONAL STATUS		
TOTALLY BEDRIDDEN	638	63.0
PARTIALLY BEDRIDDEN	342	33.8
INDEPENDENT	32	3.2
HAVING CHRONIC DISEASE		
YES	952	94.1
NO	60	5.9
COVID-19 VACCINE STATUS		
VACCINATED	842	83.2
UNVACCINATED	170	16.8
VACCINE TYPE(N=842)		
SINOVAC	767	91.1
PFIZER/BIONTECH	75	8.9
Vaccination Time (N=842)		
IN DUE COURSE	808	96.0
LATER	34	4.0
REASON FOR DELAYED VACCINATION(N=34)		
WAITING FOR A MORE RELIABLE VACCINE	16	47.1
LEARNING ABOUT SIDE EFFECTS	5	14.7
TO SEE PROTECTION RATES	3	8.8
HAVE AN İNFECTION	7	20.6
Other*	3	8.8
Vaccination place/unit (n=842)		
Home / Filiation Team	465	55.2
Home / Home Health Services	92	10.9
Hospital	142	16.9
Family Health Center	143	17.0
Post-vaccine side effect (n=842)		
Yes	10	1.2
No	832	98.8
Hesitation despite vaccination(n=842)		
Yes	12	1.4
No	830	98.6

*Other option; includes reasons such as surgery, hospitalization, not following the vaccination time, and the doctor's disapproval due to diseases such as cancer.

Of the participants with chronic diseases, 54.4% had cardiovascular disease, 43.7% had a neurological disease, 29.2% had endocrinological diseases, 8.5% had respiratory system diseases, and 5.5% had cancer. Participants' knowledge about the vaccine was obtained from television (89.4%), other media (39.1%), family physician (17.9%), family (8%), neighbors (0.5%), and friends (0.4%). Unvaccinated participants were asked about their reasons for not being vaccinated; 34.1% stated that they did not have enough information about COVID-19 vaccines, 27.1% stated that they could not deal with the vaccine and its effects because they were old, and 25.3% stated they were taking adequate precautions against the disease. While 65% of the participants aged 18-64 were vaccinated, 86.2% of the people aged 65 and over were vaccinated. It was determined that people with primary school education levels and above were vaccinated at a higher rate than those who did not. The vaccination rate of bedridden persons was 78.7%. The vaccination rate of partially dependent/independent persons was higher and it was statistically significant (Table 2).

Table 2. *The distribution of sociodemographic characteristics of the participants according to their COVID-19 vaccination status*

Sociodemographic characteristics		Have you been vaccinated against COVID-19? n(%)		p
		Yes	**No**	
Age	18-64	93 (65.0%)	50 (35.0%)	<0.001*
	65-74	119 (89.5%)	14 (10.5%)	
	75-84	295 (85.8%)	49 (14.2%)	
	85+	335 (83.2%)	57 (16.8%)	
Gender	Male	266(83.6%)	52(16.4%)	0.797
	Female	576(83.0%)	118(17.0%)	
Educational Status	No formal education	342 (80.3%)	84 (19.7%)	0.034*
	Primary school and above	500 (85.3%)	86 (14.7%)	
Functional Status	Totally bedridden	502 (78.7%)	136 (21.3%)	<0.001*
	Partially bedridden/independent	340 (90.9%)	34 (9.1%)	
Having Chronic Disease	Yes	795 (83.5%)	157 (16.5%)	0.298
	No	47 (78.3%)	13 (21.7%)	

* p<0.05 Chi-square test was used in the analysis.

93.9% of participants who received information about the COVID-19 vaccine from their family doctor were vaccinated, and 80.9% of participants who did not receive information from their family doctor were vaccinated. The vaccination rate of those who received information from their family doctor was significantly higher (Table 3).

Table 3. *Distribution of COVID-19 vaccine information sources by participants' COVID-19 vaccination status*

Information Source		Have You Been Vaccinated Against COVID-19? n(%)		p
		Yes	**No**	
Television	Yes	748 (82.7%)	157 (17.3%)	0.174
	No	94 (87.9%)	13 (12.1%)	
Media	Yes	330 (83.3%)	66 (16.7%)	0.928
	No	512 (83.1%)	104 (16.9%)	
Family physician	Yes	170 (93.9%)	11 (6.1%)	<0.001*
	No	672 (80.9%)	159 (19.1%)	
Family/friend	Yes	77 (88.5%)	10 (11.5%)	0.166
	No	765 (82.7%)	160 (17.3%)	

* p<0.05 Chi-square test was used in the analysis.

Participants aged 18-64 did not get vaccinated most frequently because they thought they did not have enough information, while those between the ages of 65-74 thought they had taken adequate precautions (50.0%), those between the ages of 75-84 thought they did not have enough information (38.8%), and those aged over 85 years stated that they thought they were old and could not deal with vaccine and its effects (56.1%).

The most common reason why men are not vaccinated is that they think they do not have enough knowledge about the vaccine, while women think that they can not deal with the vaccine and its effects because they are old. The most common reason for not getting vaccinated among the participants who did not have a school education is that they think that they cannot deal with the vaccine and its effects because they are old, while the participants with primary school or higher education think that they do not have enough information about vaccines, and the difference between them is significant. The most common reason why bedridden people do not get vaccinated is the lack of sufficient information, and partially dependent/independent people thought they can not deal with vaccines and their effects due to old age (Table 4)

Table 4. *Distribution of sociodemographic characteristics by the reasons for not getting a COVID-19 vaccine of the participants (N=170)*

Sociodemographic Characteristics		*Reason not to get a COVID-19 vaccine* n(%)				P	Post-hoc
		(A) Not informed enough	**(B) I can't deal with vaccine and its side effect due to my old age**	**(C) I take adequate precautions**	**(D) Other**		
Age	18-64	23(46.0%)	1(2%)	16(32%)	10(20%)	**	
	65-74	6(42.9%)	0(0%)	7(50%)	1(7.1%)		
	75-84	19(38.8%)	13(26.5%)	10(20.4%)	7(14.3%)		
	85+	10(17.5%)	32(56.1%)	10(17.5%)	5(8.8%)		
Gender	Male	23(44.2%)	5(9.6%)	16(30.8%)	8(15.4%)	0.008*	B(<0.001)
	Female	35(29.7%)	41(34.7%)	27(22.9%)	15(12.7%)		
Educational Status	No formal education	21(25.0%)	32(38.1%)	20(23.8%)	11(13.1%)	0.009*	A(0.013) B(<0.001)
	Primary school and above	37(43.0%)	14(16.3%)	23(26.7%)	12(14.0%)		
Functional Status	Totally bedridden	49(36.0%)	32(23.5%)	37(27.2%)	18(13.2%)	0.180	-
	Partially bedridden or Independent	9(26.5%)	14 (41.2%)	6(17.6%)	5(14.7%)		
Having Chronic Disease	Yes	52(33.1%)	43(27.4%)	41(26.1%)	21(13.4%)	**	-
	No	6(46.2%)	3(23.1%)	2(15.4%)	2(15.4%)		

* p<0.05

** The chi-square result is unreliable because more than 20% of the cells have an expected value of less than 5.

The distribution of sociodemographic characteristics according to the type of vaccine received by the participants is as follows: Sinovac vaccine preference is 64.5% in individuals aged 18-64, 89.9% in the age group 65-74, 93.2% in the age group 75-84, 97% in people aged 85 and over. As the age increased, the Sinovac vaccine was preferred more and it was found to be statistically significant. While the preference for the Sinovac vaccine is 94.2% for people who do not have a school education, it is 89% for those with primary school or higher education. As the education level increases, the Biontech vaccine is preferred. While the rate of preference for the Sinovac vaccine was 93.6% in totally bedridden, it was 87.4% in partially dependent/independent individuals. Totally bedridden people are more likely to get the Sinovac vaccine (Table 5).

Table 5. *Distribution of the sociodemographic characteristics of the participants by vaccine type*

Sociodemographic Characteristics		VaccineType N(%)		p
		Sinovac	**Biontech**	
Age	18-64	60 (64.5%)	33 (35.5%)	<0.001*
	65-74	107 (89.9%)	12 (10.1%)	
	75-84	275 (93.2%)	20 (6.8%)	
	85+	325 (97%)	10 (3%)	
Gender	Male	238 (89.5%)	28 (10.5%)	0.262
	Female	529 (91.8%)	47 (8.2%)	
Educational status	No Formal Education	322 (94.2%)	20 (5.8%)	0.010*
	Primary School And Above	445 (89%)	55 (11%)	
Functional status	Totally Bedridden	470 (93.6%)	32 (6.4%)	0.002*
	Partially Bedridden/Independent	297 (87.4%)	43 (12.6%)	
Having chronic disease	Yes	723 (90.9%)	72 (9.1%)	0.532
	No	44 (93.6%)	3 (6.4%)	

* p<0.05Chi-square test was used in the analysis

Dıscussıon

The mean age of study participants was 77.4±16.2 years. Approximately 80% of the participants were aged 75 and over. 68.6% of the participants were women. When similar studies in the literature are examined, it has been determined that most of the people who receive home health and care services are 75 years old and over, and a significant part of the participants are women.[1,7,8] The number of women in our study is about twice that of men. This could be because life expectancy is higher in women and women lead a longer life than men.[9]

Of the participants, 83.2% got the COVID-19 vaccine. This rate was 86.2% in people over 65 years of age. In a study examining COVID-19 vaccine hesitations in Hong Kong, 61.7% of people over the age of 60 were willing to vaccinate[10], in a study investigating COVID-19 vaccine acceptance rates in China, 79% of people aged 60 and over accepted the vaccine[11], and in a study conducted in Thailand that examined the reasons for hesitation about the COVID-19 vaccines of the elderly aged 60 and over, those who agreed to be vaccinated constituted 55.7% of the participants.[12] Compared to other studies, Home Health Care services patients were more likely to agree to be vaccinated than other people aged 65 and over. It is thought that our health policy, which provides HHCS patients and the elderly with the opportunity to be vaccinated at home, contributed to this result. The fact that 66.1% of our patients benefit from the vaccination service at home by the Home Health Care Services or filiation teams supports this idea. It was determined that people with primary school education levels and above were vaccinated at a higher rate than those who did not receive school education. In a study conducted in China, it was found that as the level of education increases, the willingness to get vaccinated against COVID-19 increases.[13] The general attitude of the public towards possible COVID-19 vaccines in Jordan, Kuwait, and other Arab countries was evaluated, and it was observed that the acceptance rate of the COVID-19 vaccine was higher in participants with higher education levels.[14]

Of our patients, 91.1% preferred the Sinovac vaccine, which was first introduced to them, and 96% of those who were vaccinated as soon as it was their turn. It is thought that the most important reason why the Sinovac vaccine is preferred more than the Biontech vaccine, which has difficulties in storage, transportation, and administration, is that it allows it to be administered at home, considering that a significant portion of the patients is bedridden. While the Sinovac vaccine is highly preferred in people aged 65 and over, only 64.5% of the participants between the ages of 18-64 preferred the Sinovac vaccine, and the remaining patients had the Biontech vaccine. Similarly, in a study conducted in China examining Sinovac-Biontech vaccine preferences, the rate of those who stated that they expected a better vaccine (Biontech) was higher in 18-59-year-olds than in those aged 60 and over.[15] In our study, it was also observed that the Biontech vaccine was preferred at a higher rate by people who had primary school or higher education compared to those who did not. It is thought that this situation is due to people between the ages of 18-64 having more educational opportunities than the elderly participants and, accordingly, the number of people who receive an education is higher than other age groups.

Of the patients, 63% were totally bedridden and 33.8% were partially bedridden. While 78.7% of bedridden people were vaccinated against COVID-19, 90.9% of partially bedridden/independent people were vaccinated. In our study, being totally bedridden was found to be a factor that reduced the vaccination rate. Totally bedridden people were not vaccinated because they did not have enough information about the vaccine and they thought that they took adequate precautions against the transmission of the COVID-19 infection. The limitation of being bedridden created difficulty in accessing sufficient information. The reason for the low rate of vaccination in bedridden people is that they think that they take adequate precautions due to the inability to join a society and the compulsory social isolation situation.

Of the participants, 89.4% were informed about COVID-19 vaccines through television; 39.1% through other media, and 17.9% from their family doctor. Vaccination rates were significantly higher in people who received information about COVID-19 vaccines from their family doctor than those who didn't. In a study conducted on Norwegian adults, vaccine hesitancy decreased as confidence in the information received from health officials about the vaccine increased.[16] In a study examining the factors affecting COVID-19 vaccine acceptance, it was seen that neighbors, family members, and friends were the first sources of information, and 33.9% of the people received information from health professionals.[17] In a study based in Italy, search engines and doctors/health professionals are the most preferred information sources about vaccines.[18] Television and media may be at the forefront among the sources of information about vaccines due to the ease of access to information. Since most of the participants are bedridden, the source of information can mostly be television. Although the number of those who received information from the family physician was less than the other options, their rate of vaccination is higher. This result indicates that family physicians who provide preventive health services seem to be effective and important in the attitudes and behaviors of patients in this regard. For this reason, Home Health Care Services physicians and family physicians have more duties to raise awareness of vaccination among Home Health Care patients.

Of the participants, 16.8% refused to get the COVID-19 vaccine. The most common reason for rejection is that they don't have enough information about the vaccine. People aged 85 and over have not been vaccinated because they think that they can't deal with the vaccine's side effects, and they are old. Studies in the literature have shown that the most common reason for hesitation about COVID-19 vaccines among the adult and elderly population is to be concerned about the effectiveness of the vaccine and its possible side effects.[12,19,20,21,22] The fact that vaccines are new, there are some uncertainties due to the lack of long-term studies, and the lack of sufficient information about them stand out as the main reasons for vaccine refusal.

Conclusıon

The rate of getting the COVID-19 vaccine is high among Home Health Care Services patients. Especially in participants aged 65 and over, the rate of vaccination was found to be significantly higher than in other age groups. The reasons why Sinovac is used at a high rate in patients receiving Home Health Care Services, where bedridden patients are in the majority, is that it can be applied at home thanks to the ease of storage, transportation, and application, and the service of vaccination at home with the teams established by the Ministry of Health.

Lımıtatıons

Since our study was conducted with the patient group registered to the Home Health Care Services unit, approximately 10% of the participants have a disease that caused difficulty in communicating like dementia and cerebrovascular disease. Information was obtained from primary caregivers of the patients who could not communicate due to their diseases. The applications and service processes of the patients registered in the Home Health Care Service are generally made by the relatives of the patients. Due to the nature of HHCS, decisions regarding the treatment and follow-up of patients are made together with the patient's relatives.

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Conflicts of Interest

The authors declare that they have no competing interests.

References

1. Yörük S, Çalışkan T, Gündoğdu H. Balıkesir Devlet Hastanesi Evde Bakım Hizmet Biriminden Hizmet Alan 65 Yaş ve Üzeri Yaşlı Bireylerin Bakım Alma Nedenleri Ve Sağlanan Hizmetlerin Belirlenmesi. Balıkesir Sağlık Bilimleri Dergisi. 01 Nisan 2012;1(1):12-5.
2. Pınar R. Türkiye'de Evde Bakımda Mevcut Durum. 3 Akademik Geriatri Kongre Kitapçığı. 2010;153-6.
3. Sağlık Bakanlığınca Sunulan Evde Sağlık Hizmetlerinin Uygulama Usul ve Esasları Hakkında Yönerge. B.10.0.THG.0.10.00.01-020/8751 Şub 24, 2011. Erişim Adresi: https://www.saglik.gov.tr/TR,11271/saglik-bakanliginca-sunulan-evde-saglik-hizmetlerinin-uygulama-usul-ve-esaslari-hakkinda-yonerge.html Erişim Tarihi: 02.11.2022.
4. Karataş Z. COVID-19 Pandemisinin Toplumsal Etkileri, Değişim ve Güçlenme. Türkiye Sosyal Hizmet Araştırmaları Dergisi 2020;4(1):3-17.
5. Demirel AC, Sütçü S. Covid-19 Salgınında Türkiye'de Yaşlılara Yönelik Uygulamalar ve Hizmetlerin Değerlendirilmesi. OPUS International Journal of Society Researches , Pandemi Özel Sayısı2021:3641-3675.
6. Dayan S. COVID-19 ve Aşı. Dicle Tıp Dergisi / Dicle Med J.(Special Issue).2021;48:98-113.
7. Çayır Y, Avşar ÜZ, Avşar Ü, Cansever Z, Khan AS. Evde Sağlık Hizmetleri Alan Hastaların Özellikleri ve Bakım Verenlerin Beklentileri. Konuralp Tıp Dergisi. 2013;5(3):9-12.
8. Abbatecola AM, Incalzi RA, Malara A, Palmieri A, DiLonardo A, Fedele G et al. Gero Covid Vax Working Group. Monitoring COVID-19 vaccine use in Italian long term care centers: TheGeroCovid VAX study. Vaccine. 2022(1);40(15):2324-2330.
9. Türkiye İstatistik Kurumu. İstatistiklerle Yaşlılar. 2020. Erişim Adresi: https://data.tuik.gov.tr/Bulten/Index?p=Istatistiklerle-Yaslilar-2020-37227 Erişim Tarihi: 22.02.2022.
10. Luk TT, Zhao S, Wu Y, Wong JY, Wang MP, Lam TH. Prevalence and determinants of SARS-CoV-2 vaccine hesitancy in Hong Kong: A population-based survey. Vaccine.2021;16;39(27):3602-3607.
11. Jiahao Wang, Beibei Yuan, Xinran Lu, Xiaoxue Liu, Li Li et al. Willingness to accept COVID-19 vaccine among the elderly and the chronic disease population in China, Human Vaccines&Immunotherapeutics, 2021;17(12):4873-4888.
12. Thanapluetiwong S, Chansirikarnjana S, Sriwannopas O, Assavapokee T, Ittasakul P. Factors associated with COVID-19 Vaccine Hesitancy in Thai Seniors. Patient Prefer Adherence. 2021 Oct 31;15:2389-2403.

13. Gan L, Chen Y, Hu P, Wu D, Zhu Y, Tan J et al. Willingness to Receive SARS-CoV-2 Vaccination and Associated Factors among Chinese Adults: A Cross-Sectional Survey. Int J Environ ResPublic Health. 2021;18(4):1993.
14. Sallam M, Dababseh D, Eid H, Al-Mahzoum K, Al-Haidar A, Taim D et al. High Rates of COVID-19 Vaccine Hesitancy and Its Association with Conspiracy Beliefs: A Study in Jordan and Kuwait among Other Arab Countries. Vaccines (Basel). 2021;9(1):42.
15. Wong MCS, Wong ELY, Cheung AWL, Huang J, Lai CKC, Yeoh EK et al. COVID-19 Vaccine Hesitancy in a City with Free Choice and Sufficient Doses. Vaccines 2021;9:1250.
16. Ebrahimi OV, Johnson MS, Ebling S, Amundsen OM, Halsøy Ø, Hoffart A et al. Risk, Trust, and Flawed Assumptions: Vaccine Hesitancy During the COVID-19 Pandemic. Front Public Health. 2021;1;9:700213.
17. Berihun G, Walle Z, Berhanu L, Teshome D. Acceptance of COVID-19 Vaccine and Determinant Factors Among Patients with Chronic Disease Visiting Dessie Comprehensive Specialized Hospital, Northeastern Ethiopia. Patient Prefer Adherence. 2021 Aug 17;15:1795-1805.
18. Del Riccio M, Bechini A, Buscemi P, Bonanni P, On Behalf Of The Working Group Dhs, Boccalini S. Reasons for the Intention to Refuse COVID-19 Vaccination and Their Association with Preferred Sources of Information in a Nationwide, Population-Based Sample in Italy, before COVID-19 Vaccines Roll Out. Vaccines(Basel). 2022;8;10(6):913.
19. Utami A, Margawati A, Pramono D, Nugraheni A, Pramudo SG. Determinant Factors of COVID-19 Vaccine Hesitancy Among Adult and Elderly Population in Central Java, Indonesia. Patient Prefer Adherence. 2022;28;16:1559-1570
20. King WC, Rubinstein M, Reinhart A, Mejia R. COVID-19 Vaccine Hesitancy January-May 2021 Among 18-64 Year Old US Adults By Employment And Occupation. PrevMedRep. 2021;24:101569.
21. Silva TM, Estrela M, Roque V, Gomes ER, Figueiras A, Roque F et al. Perceptions, knowledge and attitudes about COVID-19 vaccine hesitancy in older Portuguese adults. Age Ageing. 2022;1;51(3):13.
22. Hayashi Y, Suzuki K, Tonegawa K. Studies of influenza vaccination among elderly nursing home residents. KansenshogakuZasshi. Japanese. 2007;81(4):408-13.