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YAŞLI TÜRK BİREYLERİNİN COVİD-19 AŞI TEREDDÜTÜ HAKKINDA ALGI, BİLGİ VE TUTUMLARI

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Öz

Aşılama faaliyetleri bulaşıcı hastalıkların, ölümlerin ve bu hastalıkların neden olduğu kalıcı sonuçların önlenmesini amaçlamaktadır. Tüm dünyayı etkisi altına alan Covid-19 virüsü nedeniyle tüm insanlar bu virüsün olumsuz etkilerinden doğrudan etkilenmiştir. Özellikle yaşlı nüfusun bu virüsten daha çok etkilenmesi sebebiyle sosyal izolasyona ençok maruz kalan grup olmuştur. Şanlıurfa Covid-19 aşılama oranı bakımından Türkiye'de en düşük il olarak görülmektedir. Bu araştırma Şanlıurfa ilinde yaşayan 60 yaş ve üzeri bireyler arasında 01.07.2022-30.07.2022 tarihleri arasında, toplamda 507 yaşlı bireye yapılmıştır. Araştırmada kullanılan ölçeğin Güvenirlik Algısı alt boyutu ortalaması 3,14, Komplo teorileri alt boyutu ise 2,79 çıkmıştır. Araştırmaya katılanların %35,1'i Covid-19 aşılarına güvenmediklerini, %64,9'u ise güvendiklerini belirtmiştir. Araştırmaya katılan yaşlı bireylerin %23,9'u hiç aşı olmadıklarını, %43,6'sı ise 2 doz aşı olduklarını ifade etmişlerdir. Yeniden covid-19 aşısı olur musunuz sorusuna ise araştırmaya katılan yaşlıların sadece %18.7'si (95) evet, %81.3'ü (412) ise hayır demiştir. Sağlık çalışanları tarafından yaşlı bireyler ve ailelere covid-19 virüsünün tehlikeleri ve bu virüse karşı geliştirilen aşıların güvenirliliği hakkında bilgilendirme çalışmalarının yapılması, aşılama oranını arttıracaktır.

Anahtar Kelimeler: *Covid-19 Aşısı, Aşı güveni, Yaşlı birey.*

Perceptions, Knowledge, and Attitudes of Elderly Turkish Individuals Regarding Covid-19 Vaccine Hesitancy

Abstract

Vaccination activities aim to prevent contagious diseases, deaths, and permanent sequels caused by these diseases. Due to the Covid-19 virus, which has affected the whole world, all people have been directly affected by the negative effects of this virüs. Especially since the elderly population is more affected by this virus, it has become the group most exposed to social isolation. Şanlıurfa is accepted as the lowest province in Turkey in terms of Covid-19 vaccination rate. This study was conducted among 507 elderly people, aged 60 and older who lived in Şanlıurfa, between 01.07.2022 and 30.07.2022. The average of the confidence perception sub-dimension was found as 3.14 and the average of conspiracy theories in the sub-dimension was found as 2.79 on the scale used for the study. 35.1% of the participants stated that they did not trust in Covid-19 vaccine, and 64.9% of them stated that they trust it. 23.9% of elderly people who participated in the study stated that they did not receive any vaccine and 43.6% of them stated that they received 2 doses. To the question, "would you get the covid-19 vaccine again?" only 18.7% of the participants (95) answered yes, and 81.3% of them (412) answered no. Informing elderly individuals and families by healthcare professionals about the dangers of the Covid-19 virus and the reliability of vaccines developed against this virus will increase the vaccination rate.

Keywords: *Covid-19 vaccine, Vaccine confidence, Elderly people.*

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1. Introduction

Vaccination activities aim to prevent contagious diseases, deaths, and permanent sequels caused by these diseases. Through vaccination, while individual immunity is provided and people are protected from diseases, herd immunity is provided as well (Gür, 2019). Because of a new virus called COVID-19, announced in Wuhan, China in December 2019, World Health Organization declared a pandemic across the world in 2020. Across the world, more than 622 million people have been infected with this virus and more than 6.5 million people have died because of it (worldometers.info, 2022). After they determined that this was a new virus, scientists who tried to get to know the virus at the beginning of the pandemic began their studies to develop an effective vaccine against it. Some vaccines, approved for emergency use, were started to be used primarily for elderly people, people with chronic disease, and health workers, before scientists, who carried out their studies in several countries across the world, did not complete phase 3 trials of these vaccines.

Firstly, the Coronavac vaccine was approved in Turkey by passing a 14-day safety test of the Turkish Medicines and Medical Devices Agency (TİTCK). After this approval, the first vaccination activity against COVID-19 virus began by vaccinating Fahrettin Koca, the Minister of Health, on January 13, 2021 (Ministry of Health, 2022a). Since March 14, 2021, the Pfizer-BioNTech vaccine developed in Germany has also been used in Turkey. Therefore, 2 vaccines, developed against the COVID-19 virus, were put into use by the Ministry of Health (MH) throughout Turkey. The groups to be vaccinated primarily were determined by the MH and the vaccination program was planned in three stages. In the first stage, health workers, the elderly, and disabled people were vaccinated. In the second stage, prioritized sector workers to maintain production activities, and people aged 50-64 were vaccinated. In the third and last stage, people with chronic disease and other groups were aimed to be vaccinated (https://covid19asi.saglik.gov.tr/TR-77707/asi-uygulanacak-grup-siralamasi.html). People aged 65 and older were prioritized among groups to be vaccinated in Turkey. Because this virus affected mostly elderly individuals and death rates were high in this group (Mostaza et al., 2020; Niu et al., 2020).

While vaccination activities were conducted throughout Turkey, vaccination rates could not be reached at the desired level in some cities because of some gossips regarding covid-19 vaccines which was not scientific-based. While the two doses vaccination rate was 85.65%, it was 62.8% in Şanlıurfa where vaccination activities were not high enough (Covid-19 Vaccination Information Platform, 2022a). With this vaccination rate, Şanlıurfa ranks last among the cities in Turkey in terms of the two-dose vaccination rate. There are not certain factors regarding anti-vaccination which are agreed upon in the literature. In addition, anti-vaccination directly affects public health due to the costs it may cause to health systems and the public costs to be emerged by the externalities of not being vaccinated (Yalçın & Demir, 2021). At the beginning of the discourses on COVID-19 vaccine opponents in Turkey, there are conspiracy theories such as that the chemicals in the vaccines are harmful to human health, vaccines that have not completed the trial period would be tried on us, they would cause infertility, they would change our genetics, they would have side effects, people who receive vaccine would die, and there are pork products in vaccines (Gür, 2019; Çopur & Karasu, 2021).

The rate of people who received the COVID-19 vaccine in Şanlıurfa was low. There is not any study regarding the intentions of elderly people, most affected by the virus, for being vaccinated. This study aims to determine the perception of people aged 60 and older living in Şanlıurfa regarding the COVID-19 vaccine and their intentions for being vaccinated again.

2. Methodology

2.1. Research Design

This research is a quantitative research method and is of descriptive type. Descriptive research in the field of social sciences is carried out with the aim of predicting the emergence of the problem and making generalizations by determining the relationships between variables (Siedlecki, 2020). In the method section of this research, research population and sample, data collection tools, data analysis and ethical approval sections are included.

2.2. The Research Population and Sample

According to 2021 data, the population of the study consisted of 128.415 people aged 60 and over living in Şanlıurfa. With a simple random sampling method, 383 elderly people were counted as the sample of the study with a 0.95 confidence level and 0.05 confidence interval. 5 pollsters were assigned to conduct the questionnaire in Şanlıurfa. The scale of the study was applied between 01.07.2022 and 30.07.2022. 507 people aged 60 and older, living in Şanlıurfa, participated in the study.

2.3. Data Collection Tool

A data collection questionnaire, consisting of two parts, was used in the study. In the first chapter of the data collection tool, there are 11 questions prepared to determine the socio-demographic characteristics of elderly people living in Şanlıurfa. In the second chapter of the questionnaire, "Individuals' COVID-19 Vaccine Perception and Attitude Scale" developed by Eris (2022) was used to determine the feelings and thoughts of elderly people living in Şanlıurfa regarding COVID-19 vaccines (Eriş, 2022).

Individuals' COVID-19 Vaccine Perception and Attitude Scale: On the scale, elderly people were asked to answer the statements in two sub-dimensions, one of which was "Confidence, 11 statements" and the other one was "Conspiracy Theories, 10 Statements" on COVID-19 vaccines. In this part, the 5-Likert scale was used to determine the participation degree of elderly people in every statement. According to the 5-Likert scale, the participation degrees of elderly people living in Şanlıurfa to the statements regarding Covid-19 vaccines were determined as "Strongly Disagree (1)", "Disagree (2)", "Neutral (3)", "Agree (4)" and "Strongly Agree (5)".

2.4. Analysis of the Data

Statistical analyses in the research were made by using SPSS 22.0 package program. In the research, descriptive statistics were used and Cronbach Alpha analysis was made to determine the reliability of the scale. Cronbach's Alpha coefficient of the confidence sub-dimension in the scale was counted as 0.839. Cronbach's Alpha coefficient of the conspiracy theories sub-dimension in the scale was counted as 0.891. According to the obtained findings, the reliability of scale, used in the research, was found as "highly reliable".

2.5. Ethical Considerations

For the study, with the decision numbered 2021/157 given by the Social Sciences Ethics Committee of University on 12.10.2021, the decision "it conforms to Ethical Principles" was taken. A form, accepted by the ethics committee, was prepared for the elderly individuals who participated in the survey, stating why the research was conducted and that they were free to participate in this research. This form was read to the elderly individuals who participated in the survey by the survey administrators, and the elderly individuals, who approved, participated in the survey.

3. Findings

In this part of the study, information regarding the research is provided. In Table 1, frequency distribution and descriptive statistics for confidence perception sub-dimension of the scale used in the study are shown.

Table 1. *Frequency distribution and descriptive statistics for the statements of confidence perception scale*

Confidence Perception	Mean (SD)	Median (IQR)
I think COVID-19 vaccines are not dangerous.	3,207 (1,401)	4 (2)
I think the developed COVID-19 vacicines have been tested sufficiently.	3,290 (1,227)	4 (2)
I think the developed COVID-19 vacicines have protective effect.	3,377 (1,189)	4 (1)
I think Biontech (German) vaccine developed for COVID-19 is safe.	3,331 (1,196)	4 (1)
I think Sinovac (China) vaccine developed for COVID-19 is safe.	3,110 (1.230)	3 (2)
I think information regarding COVID-19 vaccines provided by Ministry of Health is true.	3,387 (1,180)	4 (1)
The document which is signed before receiving Biontech (German) vaccine unsettles me.	2,927 (1,251)	3 (2)
I think the side-effects of COVID-19 vaccines is worrisome.	2,903 (1,251)	3 (2)
I want my family to receive vaccine as soon as possible.	3,343 (1,325)	4 (2)
I think COVID-19 vaccines are dangerous for pregnant women.	2,959 (1,091)	3 (2)
I think I can get over the pandemic period without receiving COVID-19 vaccine.	2,704 (1,235)	3 (2)
Confidence Perception Total	3,140 (0,489)	3,18 (0,64)

Descriptive statistics of Confidence Perception Scale are shown in Table 1. Considering the means of the items, it was found that the item “I think information regarding COVID-19 vaccines provided by Ministry of Health is true” had the highest mean with 3.381 and the item “I think I can get over the pandemic period without receiving COVID-19 vaccine” had the lowest mean with 2.074.

In Table 3, frequency distribution and descriptive statistics for the perception of conspiracy theories sub-dimension of the scale used in the study are shown.

Table 2. *Frequency distribution and descriptive statistics for the statements of conspiracy perception sca*le

Conspiracy Perception	Mean (SD)	Median (IQR)
I think this virus emerged because of the effort of developed countries to sell medicine and vaccine.	3,112 (1,331)	3 (2)
I think COVID-19 virus was made deliberately by some rich people to reduce the world population.	3,077 (1,310)	3 (2)
I think the developed COVID-19 vaccines cause infertility.	2,734 (1,200)	3 (2)
I think they will track us with 5G transmitters by implanting chip through the developed vaccines.	2,363 (1,212)	2 (2)
I think they will alter our genes with COVID-19 vaccines.	2,517 (1,309)	2 (2)
I think COVID-19 vaccines cause heart attack.	2,834 (1,243)	3 (2)

I think receving vaccine is sin because there are pork products in COVID-19 vaccines.	2,418 (1,249)	2 (2)
I think COVID-19 vaccines cause new COVID-19 variants to emerge.	2,677 (1,220)	3 (2)
I think there are many people who received vaccine but infected with the virus and they are hidden from us.	3,122 (1,296)	3 (2)
I think there are many people who received vaccine but died of the disease and they are hidden from us.	3,093 (1,366)	3 (2)
Conspiracy Perception Total	2,795 (0,907)	2,8 (1,30)

Descriptive statistics of Conspiracy Perception Scale are shown in Table 2. Considering the means of the items, it was found that the item ". I think there are many people who received vaccine but infected with the virus and they are hidden from us" had the highest mean with 3.122 and the item "I think they will track us with 5G transmitters by implanting chip through the developed vaccines" had the lowest mean with 2.363.

The socio-demographic characteristics of the participants are shown in Table 3.

Table 3. *Socio-demographic characteristics of the participants*

Variables		n (%)
Gender	Female	169 (33.3)
	Male	338 (66.6)
Age (Years)	Between 60-65	349 (%68.8)
	66 and older	158 (31.2)
Occupation	Employee	244 (48.1)
	Housewife	139 (27.4)
	Retiree	124 (24.5)
Education	Illiterate	100 (19,7)
	Literate	93 (18.3)
	Primary School	107 (21.1)
	Secondary School	61 (12.0)
	High School	60 (11.8)
	University	86 (16.9)
Place	City center	303 (59.8)
	District	204 (40.2)
Whether a family member has been infected with COVID-19	Yes	222 (43.8)
	No	285 (56.2)
Have you ever been infected with COVID-19?	Yes	191 (37.7)
	No	316 (62.3)
Would you receive the COVID-19 vaccine again at the first opportunity?	Yes	95 (18.7)
	No	412 (81.3)

How many doses of vaccines have you received?	I did not receive the vaccine	121 (23.9)
	One dose	85 (16.8)
	2 doses	221 (43.6)
	3 doses	70 (13.8)
	4 doses	10 (2)
Do you have any chronic diseases?	Yes	219 (43.2)
	No	288 (56.8)
COVID-19 Vaccine Hesitancy	I do	178 (35.1)
	I trust	329 (64.9)
	Total	507 (100)

The frequency distributions of elderly people, who participated in the study, are shown in Table 3. According to the findings obtained, the rate of male participants was found as 66.6%. 68.8% of the participants were in the 60-65 age group. According to the findings obtained in terms of occupation, 48.1% of the participants were employees, 27.4% of them were housewives and 24.5% of them were retirees.

According to the findings obtained, in terms of education, 19.7% of elderly people were illiterate, 18.3% of them were literate, 21.1% of them graduated from primary school, 12% of them graduated from secondary school, 11.8% of them graduated from high school, 16.9% of them graduated from college. When the frequency distribution was examined, according to the place the participants live, the rate of participants who lived in the city center was 59.8% and the rate of those who lived in the districts was 40.2%. 43.8% of the participants answered yes to the question of whether anyone was infected with COVID-19 in their families. According to the answers of the participants to the question "have you ever been infected with covid-19?", the rate of those who answered yes was 37.7% and the rate of those who answered no was 62.3%. To the question, “would you receive the COVID-19 vaccine again at the first opportunity?”, 81.3% of elderly people answered no and 18.7% of them answered yes. When analyzed the answers, which were given to the question, “how many doses of vaccine you have received”, 23.9% of the elderly people stated they did not receive the vaccine, 16.8% of them stated they received one dose, 43.6% of them stated they received two doses, 13.8% of them stated they received three doses, 2% of them stated they received four doses. When the frequency distribution was examined, according to the chronic disease status of participants, it was found that the rate of those who answered yes was 35.1% and the rate of those who answered no was 64.9%. 35.1% of the participants stated they were hesitant about COVID-19 vaccines, and 64.9% of them said they trusted them.

Table 4. *Analyses of the scales for confidence in vaccine and conspiracy perceptions in terms of demographic variables*

			N	**Mean**	**Std. Deviation**	**t**	**p**
Gender	Confidence Perception	Female	169	3.109	0.519	-0.979	0.328
		Male	338	3.155	0.488		
	Conspiracy Perception	Female	169	2.865	0.93	1.237	0.217
		Male	338	2.759	0.894		
Place		City center	303	3.137	0.502	-0.151	0.88

	Confidence Perception	District	204	3.144	0.494		
	Conspiracy Perception	City center	303	2.784	0.953	-0.308	0.758
		District	204	2.81	0.835		
Age group	Confidence Perception	60-65	349	3.144	0.51	0.281	0.779
		66 and older	158	3.131	0.473		
	Conspiracy Perception	60-65	349	2.763	0.914	-1.168	0.243
		66 and older	158	2.865	0.89		
Whether a family member has been infected with COVID-19	Confidence Perception	Yes	222	3.197	0.469	2.286	**<0,023**
		No	285	3.095	0.517		
	Conspiracy Perception	Yes	222	2.751	0.854	-0.959	0.338
		No	285	2.829	0.946		
Have you ever heard of the COVID-19 vaccine?	Confidence Perception	Yes	485	3.145	0.499	1.147	0.252
		No	22	3.021	0.483		
	Conspiracy Perception	Yes	485	2.765	0.904	-3.529	**<0,000**
		No	22	3.455	0.695		
Have you received the COVID-19 vaccine?	Confidence Perception	Yes	191	3.144	0.504	0.136	0.892
		No	316	3.138	0.496		
	Conspiracy Perception	Yes	191	2.828	0.889	0.648	0.517
		No	316	2.774	0.918		
I will receive the vaccine at the first opportunity	Confidence Perception	Yes	95	3.157	0.414	0.37	0.711
		No	412	3.136	0.516		
	Conspiracy Perception	Yes	95	2.842	0.67	0.565	0.572
		No	412	2.784	0.953		
Do you have any chronic disease?	Confidence Perception	Yes	219	3.131	0.515	-0.342	0.733
		No	288	3.146	0.486		
	Conspiracy Perception	Yes	219	2.85	0.935	1.204	0.229
		No	288	2.752	0.884		

Analyses of the scales for confidence in vaccine and conspiracy perceptions in terms of demographic variables are shown in Table 4. According to the findings obtained, there is a difference only in terms of perception of confidence in vaccine according to whether there is a family member who infected with COVID-19. When means were examined, it is seen that the confidence in vaccine of individuals with a family member who experienced COVID-19 was higher.

- In the conspiracy perception variable, it is seen that there is a difference only according to the situation of having heard about the vaccine before. When means were examined, it is seen that the confidence of individuals who answered no to the question, have you ever heard of vaccine, was higher.

- In terms of occupation variable, a statistically significant difference was found between the "employee" and "retired" groups at the dimension of confidence perception; a statistically significant difference was found between "employee" and "retired" and between "housewife" and "retired" at the dimension of conspiracy perception.
- In terms of the education variable, a statistically significant difference was found between the "illiterate" and "graduate" groups, and between the "literate" and "graduate" groups at the dimension of conspiracy perception.

Table 5. *Analyses of covid-19 vaccine hesitancy in terms of demographic variables*

		Hesitancy					
		I hesitate		**I trust**		**Total**	**p (Chi-Square)**
		N	**%**	**N**	**%**		
Gender	Female	60	35.50%	109	64.50%	169	0.895 (0.017)
	Male	118	34.90%	220	65.10%	338	
Education	Illiterate	41	41.00%	59	59.00%	100	0.170 (7.764)
	Literate	41	44.10%	52	55.90%	93	
	Primary School	39	36.40%	68	63.60%	107	
	Secondary School	20	32.80%	41	67.20%	61	
	High School	16	26.70%	44	73.30%	60	
	University	25	29.06%	61	70.09%	86	
Age group	60-65	122	34.96%	227	65.04%	349	0.915 (0.011)
	66 and older	56	35.44%	102	64.56%	158	
Place	City center	111	36.60%	192	63.40%	303	0.381 (0.769)
	District	67	32.80%	137	67.20%	204	
Have you received the COVID-19 vaccine?	I did not receive the vaccine	81	66.90%	40	33.10%	121	**<0.000 (79.256)**
	One dose	32	38.10%	52	61.90%	84	
	2 doses	28	23.00%	94	77.00%	122	
	3 doses	25	19.10%	106	80.90%	131	
	4 doses	12	24.50%	37	75.50%	49	
Occupation	Employee	93	38.10%	151	61.90%	244	**<0.025 (7.383)**
	Housewife	54	38.80%	85	61.20%	139	
	Retiree	31	25.00%	93	75.00%	124	
Economic status	Good	41	27.00%	111	73.00%	152	**<0.005 (10.511)**
	Middle	93	35.50%	169	64.50%	262	
	Bad	44	47.30%	49	52.70%	93	
Total		178	35.10%	329	64.90%	507	

Whether there was a relationship between COVID-19 vaccine hesitancy and the demographic variables of the participants was analyzed with the chi-square test, findings obtained are shown in Table 5. According to the chi-square test, a statistically significant relationship between the hesitancy about COVID-19 vaccines and gender, education, age, and place was not found. On the other hand, a statistically significant relationship was found between hesitancy about COVID-19 vaccines and the status of receiving the COVID-19 vaccine, occupation, and economic status variables.

When the percentage distributions of variables, in which a statistically significant relationship was found, were examined, it is seen that;

- In the analysis of the status of being vaccinated COVID-19, the rate of those who were hesitant about COVID-19 vaccines was high among the participants (66.90) who had not got the vaccine,
- In terms of occupation variable, employees and housewives had higher hesitancy rates about COVID-19 vaccines than retirees,
- In terms of the economic status variable, the rate of hesitancy about COVID-19 vaccine of those who defined their economic status as bad was higher than the participants who defined their economic status as good or middle.

4. Discussion, Conclusions, and Implications

This study was conducted to determine the thoughts of elderly people, who were mostly affected by the COVID-19 virus, in Şanlıurfa, the city which had the lowest rate of vaccination in Turkey, regarding COVID-19 vaccines and whether they had been vaccinated again.

According to the findings obtained in the research, 35.1% of the participants stated they were hesitant about COVID-19 vaccines, and 64.9% of them stated they trusted them. In the literature review, it was seen that different findings from this study were obtained. In the study, carried out by Rossi et al. in 2022, 60.4% of 503 elderly people who participated in the study stated that they did not trust vaccines (Rossi et al., 2022). In the study on elderly people carried out by Gaitán-Rossi et al. (2022), 72.9% of the participants stated that they trusted in COVID-19 vaccines (Gaitán-Rossi et al., 2022). In the literature review, according to the results of different studies on elderly people, it was found that the distrust rate of elderly people in COVID-19 vaccines was lower than the results of this study. When the results of similar studies were examined, in the study carried out by Al-Hanawi et al. (2021) among 488 elderly people, 22.63% of the participants stated they did not trust in COVID-19 vaccines (Al-Hanawi et al., 2021). According to the study carried out by Qin et al. (2022) with 3321 participants, aged 60 and older, in China, 32% of the elderly people stated they did not trust in COVID-19 vaccines (Qin et al., 2022). 47.45% of the elderly people who participated in the study carried out by Sanghavi and Neiterman (2022) stated they did not trust in COVID-19 vaccines.

As a result of this study carried out in Şanlıurfa, 20.2% of the elderly people stated they were uncertain about COVID-19 vaccines. There are similar results in the literature. In the study carried out by Qin et al. (2022) with 3321 participants, aged 60 and older, in China, it was found that 17.2% of the elderly people were hesitant about receiving COVID-19 vaccine again (Qin et al., 2022). In the study on vaccine hesitancy with 42.583 participants aged over 50 in 27 European countries by Wester et al. (2022), 14.8% (6.295) stated they were uncertain about COVID-19 vaccines (Wester et al., 2022). In the study on COVID-19 vaccine resistance and hesitancy among 2109 elderly people by Zhang et al. (2022) in Hong Kong, it was found that the vaccine hesitancy rate of elderly people was 15.5%. (Zhang et al., 2022). In the study carried out by Abedin et al. (2021), it was found that 24% of those who were older than 60 were uncertain about COVID-19 vaccines (Abedin et al., 2021). In the study carried out by Thanapluetiwong et al. (2021), it was found that 44.3% of those who were over 60 were uncertain about COVID-19 vaccines (Thanapluetiwong et al., 2021). In the study on elderly people who were 65

and older carried out by Wu linlin et al., it was found that 90.91% of 1067 (970/1067) participants were willing to receive the COVID-19 vaccine. The rate of elderly people who were uncertain about vaccines or did not want to receive vaccines was only 9.09% (Wu et al., 2022).

23.9% of elderly people who participated in the study stated that they did not receive any vaccine and 43.6% of them stated they received 2 doses. In the study carried out by Siu et al. (2022), 26% of elder people who participated in the study stated they received the COVID-19 vaccine (Siu et al., 2022). In the study carried out by Umakanthan et al. (2021), elderly people who were in the 55 and older age group stated that they were more willing to COVID-19 vaccine than those in the younger group (Umakanthan et al., 2021). In the study on elderly people carried out by Gaitán-Rossi et al. (2022), it was found that 7.6% of the participants stated that they did not receive any vaccine (Gaitán-Rossi et al., 2022).

Regarding the question of whether you would receive the COVID-19 vaccine again (booster dose), only 18.7% of the elderly people (95) answered yes, and 81.3% of them (412) answered no. In the study on elderly people carried out by Al-Hanawi et al. (2021), it was found that 43.85% of the participants tended to receive the COVID-19 vaccine (Al-Hanawi et al., 2021). In the study carried out by Qin et al. (2022), aged 60 and older, it was found that only 17.2% of elderly people were hesitant about receiving booster doses again (Qin et al., 2022).

35.1% of the participants stated that they were hesitant about COVID-19 vaccines, and 81.3% of them stated that they did not want to receive the COVID-19 vaccine although 64%.9 of them stated that they trust in COVID-19 vaccines. In a similar study on COVID-19 vaccine resistance and hesitancy among 2109 elderly people by Zhang et al. (2022) in Hong Kong, it was found that the rate of elderly people who did not want to receive vaccine was 50.1%. (Zhang et al., 2022). In a meta-analysis study carried out by Veronese et al. (2021), they investigated the attitude of individuals older than 60 toward COVID-19 vaccine by analyzing 15 studies. According to the results of this study, it was found that the rate of those who did not want to receive the vaccine was 27.03% (Veronese et al., 2021). In the study carried out by Abedin et al. (2021), it was found that 14.6% of 267 participants who were older than 60 did not want to receive the vaccine and 61.4% of them wanted to receive the vaccine (Abedin et al., 2021).

In this study carried out in Turkey, it was investigated whether there was a relationship between hesitancy about COVID-19 vaccines and the demographic variables of participants. According to the chi-square test, a statistically significant relationship between the hesitancy about COVID-19 vaccines and gender, education, age, and place was not found. In the literature review, similar findings were obtained in terms of gender in the studies on vaccine hesitancy (Robinson et al., 2021; Lin et al., 2021; Okubo et al., 2021; Thanapluetiwong et al., 2021; Wu et al., 2022). On the other hand, the COVID-19 vaccine hesitancy rate of females was found higher than males in some studies (Neumann-Bohme et al., 2020; Yoda & Katsuyama, 2021; Wu et al., 2021).

While a statistically significant difference in vaccine hesitancy among groups was not found in terms of education, a difference among elderly people in terms of age groups was found in the study carried out by Wu et al. (Wu et al., 2022). In the literature review, it was determined that elderly people whose education level was primary and below had higher vaccine hesitancy than those whose education level was graduate and above (Thanapluetiwong et al., 2021; Williams et al., 2021; Silva et al., 2022; Qin et al., 2022; Wu et al., 2021). It is considered that the hesitancy about COVID-19 vaccines decreases and the feeling of confidence increases due to accessing true information regarding vaccines as the education level increases.

In terms of age groups, a significant difference was not found among age groups. There are studies in the literature that show similar results to this study and a significant difference was not found among age groups of elderly people (Thanapluetiwong et al. 2021; Abedin et al., 2021; Silva et al., 2022; Wu et al., 2022). In terms of age groups, it is seen that people aged 60 and older who are investigated generally have similar thoughts regarding COVID-19 vaccines. On the other hand, in the literature review, in some studies, it was found that there was a significant difference in terms of age groups, and the group of 70 and older led to this difference (Qin et al., 2022; Wu et al, 2021).

On the other hand, a statistically significant relationship was found between hesitancy about COVID-19 vaccines and the status of receiving the COVID-19 vaccine, occupation, and economic status variables. In the analysis of the status of receiving the COVID-19 vaccine, it was found that the COVID-19 vaccine hesitancy rate of participants who did not receive the vaccine (66.90%) was higher. In the study carried out by Qin et al. (2022) a significant difference in terms of the status of receiving the COVID-19 vaccine was found between individuals with two doses and individuals who did not receive the vaccine or individuals with one dose (Qin et al., 2022).

In terms of the occupation variable of elderly people, a statistically significant difference was found among the groups in this study. In terms of occupation variables, it was found that the COVID-19 vaccine hesitancy rates of employees and housewives were higher than the rate of retirees. Similar findings were obtained in the study carried out by Zhang et al. (2022) and a significant difference was found between elderly people in the retired group and those in the employee and housewife groups. it was found that COVID-19 vaccine hesitancy rate of elderly people in the retired group was higher (Zhang et al., 2022).

In terms of the economic status of elderly people, a statistically significant difference among groups was found in this study. It was found that the COVID-19 vaccine hesitancy rate of the participants who defined their economic status as bad was higher than the participants who defined their economic status as good or middle. In the literature review, similar findings were found in the studies and statistically significant difference among groups was found in terms of the economic status of elderly people (Wu et al., 2022). On the other hand, there are also studies in which there was not a significant difference in terms of economic status variable among groups whose economic levels were different (Qin et al., 2022). In this study, the main reason why COVID-19 vaccines hesitancy rate of elderly people with bad economic status, was high was that they could not sufficiently follow the information provided by the Ministry of Health and related institutions, for they did not have the necessary resources, like cell phone, computer, and internet, to access the information regarding COVID-19 vaccines because of financial impossibility.

Consequently, in this study carried out in Şanlıurfa where the COVID-19 vaccination rate was low, 64.9% of the elderly people who participated in the study stated they trusted in COVID-19 vaccines. Nevertheless, 81.3% of them answered no to the question would you receive the COVID-19 vaccine again at the first opportunity while 18.7% of them answered as yes. 23.9% of the participants stated they did not receive any vaccine. On the other hand, it is striking even though 76.1% of the participants received the COVID-19 vaccine and 64.9% of them trusted in the COVID-19 vaccine, 81.3% of the participants did not want to receive the COVID-19 vaccine again

According to the results obtained in this study, the recommendations for covid-19 vaccination of elderly individuals can be given as follows:

- Elderly individuals and their family members should be informed about the dangers of the Covid-19 virus.
- Information should be provided about the reliability of Covid-19 vaccines

- To vaccinate booster doses of COVID-19 or to vaccinate those who have never been vaccinated, it is necessary for the vaccination authorities to establish a persuasion team for elderly people throughout Şanlıurfa,
- Thanks to these teams, it is necessary to go to the place where elderly people live and work on vaccinating them.

5. References

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