

## COVID-19 Pandemisi Süresince Huzurevinde Kalan Yaşlıların Hijyen Alışkanlıkları Üzerine Bir İnceleme\*

*An Evaluation on Hygiene Habits of Individuals Residing in Residential Homes During the COVID-19 Pandemic Process\**

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**Özet:** Amaç: Bu tanımlayıcı çalışmanın amacı huzurevlerinde ikamet eden yaşlıların COVID-19 Pandemisi süresince hijyen alışkanlıklarını değerlendirmektir. Yöntem: Çalışma; birisi normal diğeri ise büyükşehir statüsünde olmak üzere Doğu Anadolu Bölgesi sınırları içerisindeki iki şehirde bulunan huzurevlerinde ikamet eden 100 yaşlı birey ile yüz yüze görüşmeler yolu gerçekleştirilmiştir. Veriler Sosyo-demografik bilgi anketi ve hastalığa karşı korunmak için maske-mesafe-temizlik üçlemesi ile ilgili davranışları inceleyen soru formu ile toplanmıştır. Gruplar arasındaki ilişkiyi ifade etmek için pearson ki-kare analizi uygulanmıştır. Bulgular: Yaşlıların COVID-19 sonrası iyileşme durumu ve huzurevi içerisinde maske kullanma davranışları arasında anlamlı bir ilişki olduğu görülmüştür (p: 0,008; r= .514). Bununla beraber, bulaş düzeyi ve el dezenfektanı kullanma davranışı arasında da anlamlı bir ilişki bulunmaktadır(p: 0,001; r= .646). Bir diğer anlamlı bulgu ise, yaşlıların odalarına yapılan ziyaret sıklığı ve COVID-19 varlığı arasındaki anlamlı ilişkidir. Sonuç: Pandemi süresince bulaş önlemek ve azaltmak amacıyla kazanılan hijyen davranışlarında ideal düzeye yaklaşmakla beraber, maske kullanımı ve sosyal mesafe konusunda daha çok dikkat edilmesi gerektiği anlaşılmıştır.

**Anahtar Kelimeler:** COVID-19, Hijyen, Huzurevi, Pandemi, Yaşlılar.

**Abstract:** Objective: Because the number of aging population is rising gradually this descriptive study is to evaluate the behaviors of individuals' hygiene residing in residential homes during COVID-19 Pandemic. Method: The study was conducted through face-to-face interviews with 100 elderly individuals residing in nursing homes in two cities within the borders of the Eastern Anatolia Region, one of which has normal and the other metropolitan status. Data were collected with a socio-demographic information questionnaire and a questionnaire examining behaviors related to the mask-distance-cleanliness triad to protect against disease. Pearson chi-square analysis was applied to express the relationship between the groups. Results: A statistically significant relationship was found between the variable of the participants' COVID-19 recovery status and the use of masks indoors. (p: 0,008; r= .514) It was determined that there was a statistically significant relationship between the variable of COVID-19 transmission status of residential home residents and the use of hand sanitizer also there was a statistically significant relationship between the variable of the participants' status of having COVID-19 and the frequency of visitors to their rooms (p: 0,001; r= .646). Conclusions: Although the hygiene behaviors gained in order to prevent and reduce transmission during the pandemic are approaching the ideal level, it has been understood that more attention should be paid to the use of masks and social distance.

**Keywords:** COVID-19, Hygiene, Residential Home, Pandemic, Older people.

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## INTRODUCTION

Aging is a process of change that begins in the womb and ends with death, during which there might be various losses (Tufan, 2020). The total number of older people in the world and Turkey is increasing gradually due to medical and technological developments, and the control of infectious diseases (Yuvakgil, 2020). The world population in 2019 was approximately 7.5 billion people and the older population was 700 million people. According to these numbers, 9.3% of the world population belongs to old age group.

It is estimated that by 2025, one-third of Japan's population will be over the age of 65 (OECD, 2022). According to the data of the Turkish Statistical Institute (TURKSTAT), based on the last five years, the population growth rate of aged 65 and over showed an increase of 22.5%, has reached 7,853,555 people in total. Nevertheless, while the population rate aged 65 and over in the total population is expected to be 11% in 2025, it is thought that it will reach 12.9% in 2030, 22.6% in 2060, and 25.6% in 2080 (TURKSTAT, 2022).

The increase in the aging population leads to problems related to accommodation, economy, health, and old age. Old people have more chronic diseases or problems. Just like in the world, the increase in the older population in the society occupies an important place among the causes of the increase in chronic diseases in our country, and it is seen that non-communicable diseases take place near the top among the causes of death (TURKSTAT, 2022; WHO, 2021).

However, having an infectious disease in old age is also a significant cause of mortality, and it has been reported that 1/3 of deaths are caused by infection (CDC, 2020). They also have a significant influence on morbidity, exacerbate the underlying diseases, and lead to an increased risk of secondary and functional impairment in the old age group. Pneumonia, influenza, and nosocomial infection are among the top 10 causes of death in people aged 65 and over (Zhou et.al. 2020).

Coronaviruses (CoV) are a large family of viruses that cause illnesses ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). A novel coronavirus (nCoV) is a new strain that has not been previously identified in humans. The source of the disease, which was first seen in Wuhan City, China in December 2019, was detected on January 7, 2020, as a new coronavirus not identified in humans before, and the disease caused by this virus was accepted as COVID-19 (Çiçek et.al. 2020). As a result of the spread of the disease due to the lack of information about it, World Health Organization accepted it as a pandemic on March 11, 2020 (CDC, 2019). While all age groups are at risk for COVID-19, older adults are at risk for serious illness due to aging and underlying medical conditions. The older people face a higher risk of COVID-19 infection due to physiological and biological changes in organs and systems and underlying medical conditions along with aging (Mueller et.al., 2020; WHO, 2020a). The World Health Organization/Europe Weekly Surveillance Report revealed the relationship between the COVID-19 virus transmitting from person to person and age and stated that the incidence of the disease is higher in individuals over the age of 65, and 89% of deaths from COVID-19 occur in individuals over the age of 65 (Verity et.al. 2020). Similarly, in a study performed in China, they reported that the hospitalization rates with the diagnosis of COVID-19 increased with age as follows: 1% between the ages of 20 and 29, 4% between the ages of 50 and 59, and 18% in those over the age of 80 (UNFPA, 2020). In the technical note prepared by the United Nations Population Fund on the elderly, they reported that today elderly people generally live in residential homes due to the changing sociocultural structure, and elderly people in residential homes are more vulnerable to the COVID-19 pandemic (Adhikari et.al. 2020). Coronavirus is transmitted from person to person by droplets released via talking, sneezing, or coughing through the mucous membranes of the

mouth, nose, or eyes to healthy individuals who come into contact with surfaces where these droplets spill from sick people with/without symptoms. To prevent the spread of the disease, some traditional public health measures such as quarantine, isolation, hygiene, and distancing have been taken all over the world (Güner et.al. 2020).

In the process after March 11, 2020, the date of the first case sample, guidelines for the basic rules that citizens should follow have been published in our country in order to prevent the spread of COVID-19. Said guidelines contain various hygiene rules that should be regarded by individuals. In general, some of these are measures such as hand washing after coughing/sneezing, touching mouth/nose or touching contaminated surfaces, using a sanitizer, washing hands for at least 20 seconds, and washing with soap, especially social distancing. As a result of the COVID-19 pandemic, for which these and similar measures are necessary, it is envisaged that social habits for cleaning and hygiene shall completely change (Derlenski & Stankov, 2020).

Purpose of this study is to examine the preventive behaviors (such as handwashing, use of sanitizer, social withdrawal, avoiding social contact, use of masks/gloves) and attitudes of the individuals in residential homes during the COVID-19 pandemic period, investigate the hygiene behaviors of these individuals and reveal how they differ according to some demographic variables.

## **MATERIAL AND METHOD**

### **Research Methodology**

The purpose of the study was explained to the individuals participating in the study and their consent was obtained with an informed consent form.

### **Population and Sample**

The population of this study consists of elderly individuals residing in two nursing homes located in two different cities in the Eastern Anatolia Region of Turkey, one of which is a normal city and the other is a metropolitan city. Our sample group consists of a total of 100 elderly individuals who

are distant to face-to-face interviews due to pandemic conditions in both nursing homes.

### **Data Collection**

The data were collected between January 01, 2022 and February 01, 2022 by preparing questionnaires that included questions about socio-demographic characteristics, questions about the triad of cleanliness-mask-distance to prevent disease, and questions about their behaviors regarding hygiene habits. These questionnaires were collected through face-to-face interviews after obtaining permission from the dormitory management and the participants. Although it is not appropriate to conduct face-to-face interviews under pandemic conditions, considering the current age group, this method was compulsory due to the limited use of digital communication tools. Before starting the surveys, the informed consent form was read to the individuals one by one and their consent was obtained by signing the "Informed Consent Form". It was also emphasized that answering the survey questions sincerely was extremely important for obtaining valid and reliable results.

### **Data Analysis**

The analyses in the study were carried out using IBM SPSS 21.0 package program. Descriptive statistics were used in the study. Statistical techniques such as Pearson chi-square analysis were used to express the relationship between the groups in the study.

## **RESULTS**

The findings regarding the demographic data of the study are presented in Table 1.

**Table 1:** Statistical distribution of the participants according to their demographic characteristics,

<b>City Type of Nursing Homes' Locations</b>	<b>N</b>	<b>%</b>	<b>Gender</b>	<b>N</b>	<b>%</b>
City	25	25.0	Male	66	66.0
Metropolitan	75	75.0	Female	34	34.0
Total	100	100.0	Total	100	100.0
<b>Age</b>	<b>Civil Status</b>				
65-74 years old	55	55.0	Married	37	37.0
75-84 years old	36	36.0	Single	63	63.0
85 years and above	9	9.0	Total	100	100.0
Total	100	100.0	<b>Educational background</b>		
<b>Level of Income</b>	<b>Illiterate</b>				
Below minimum wage	88	88.0	Literate	12	12.0
Minimum wage and above	12	12.0	Primary School	21	21.0
Total	100	100.0	Secondary School	4	4.0
<b>Disposal of used masks</b>	<b>High School</b>				
to the closest wastebasket	84	84.0	Total	100	100.0
to the medical waste bin	10	10.0	<b>PSEYS</b>		
I don't throw it away, I reuse it	16	6.0	Yes	91	91.00
Total	100	100.0	No	9	9.00
<b>PSEKD</b>	<b>Total</b>				
Yes	17	17.0	Total	100	100.0
No	83	83.00	<b>Roommate's Disease Status with COVID-19</b>		
Total	100	100.0	Yes	45	45.0
			No	55	55.0
			Total	100	100.0

PSEKD (Participation in post-pandemic events), PSEYS (Post-Pandemic handwashing frequency)

Table 1 shows that 25.0% of the participants were in residential homes in the city and 75.0% in the metropolis. 66.0% of them were male, and 34.0% were female. We found that 55.0% of the participants were between the ages of 65 and 74, 36.0% were between the ages of 75 and 84, 9.0% were 84 years old and over, 37.0% were married and 63.0% were single. We determined that 88.0% of the participants have a level of income below the minimum wage, and 12.0% of them have a level of income at the minimum wage and above. When the distribution of the educational status of the participants is examined, it was found that 49.0% are illiterate, 12.0% are literate, 21.0% are primary school graduates, 4.0% are secondary school graduates, and 14.0% are high school graduates. The use of masks within the residential home was found to be 84.0%. While 84.0% of the participants

threw the masks used in the closest wastebasket, 10.0% of them threw them in the medical waste bin, and 6.0% stated that they did not throw them away for reuse. While 91.0% of the participants stated that the post-pandemic frequency of handwashing increased, 9.0% stated that the post-pandemic frequency of handwashing did not increase. The hand sanitizer use rate of the participants was determined to be 57.0%. While 17.0% of the participants stated that they participated in the post-pandemic activities, 83.0% stated that they did not participate in the post-pandemic activities. While 45.0% of the roommates of the participants got COVID-19 disease, 55.0% did not get COVID-19 disease. We found that 61 of the participants were diagnosed with COVID-19 during the pandemic, and 31 of them were male and 30 were female.

Results of the Pearson Chi-square Test performed In order to determine the relationship between the variable of having COVID-19 status and the daily hand washing frequency of participants are explained below.

While the handwashing rate one to six times a day was 32.8% for the participants who had COVID-19, the rate of handwashing seven times a day or more was 67.2%. It is seen that the handwashing rate one to six times a day is 46.2%, and the handwashing rate seven times a day or more is 53.8% for the participants who did not have COVID-19. No statistically significant relationship was found between the variable of having COVID-19 status and the frequency of daily handwashing ( $\chi^2:1.804$ ;  $r=0.179$ ;  $p> 0.05$ ) according to the results of the Pearson chi-square test performed to test the dependence between the variable of having COVID-19 status and the frequency of daily handwashing of the participants.

The results of the Pearson chi-square analysis performed to determine the relationship between the variable of having COVID-19 status and the mask use of participants are explained below.

We found that the general mask use rate of the participants who had COVID-19 was 98.4%, and 1.6% did not use masks in general, while the general mask use rate of the participants who did not have COVID-19 was 100.0%, in other words, all of the participants who did not have COVID-19 used masks. No statistically significant relationship was found between the variable of having COVID-

19 status and the mask use ( $\chi^2:0,646$ ;  $p=0,422$ ;  $p>0.05$ ) according to the results of the Pearson chi-square test performed to test the dependence between the variable of having COVID-19 status and the mask use of the participants.

The results of the Pearson chi-square analysis performed to determine the relationship between the variable of having COVID-19 status status and the indoor mask use of participants are presented in table 2. It was found that 91.8% of the participants who had COVID-19 used masks, and 8.2% did not use any mask when meeting with other individuals indoors, while the mask use rate of the participants who did not have COVID-19 was 71.8% and 28.2% of them did not use any mask when meeting with other individuals indoors. The coefficient of correlation ( $r= .514$ ) calculated by taking into account the coefficient of contingency ( $C=0.257$ ) can be interpreted as the relationship between the variable of having COVID-19 status and indoor mask use at a moderate level. A statistically significant relationship was found between the variable of having COVID-19 status and the indoor mask use ( $\chi^2:7,086$ ;  $p=0,008$ ;  $p<0.05$ ) according to the results of the Pearson chi-square test performed to test the dependence between the variable of having COVID-19 status and the indoor mask use of the participants (Table 2).

**Table 2:** Analysis results for the relationship between the variable of having COVID-19 status and the indoor mask use of participants

Having COVID-19 Status	Indoor Mask Use Status					
	Yes		No		Total	
	S	%	S	%	S	%
<b>Yes</b>	56	91.8	5	8.2	61	61.0
<b>No</b>	28	71.8	11	28.2	39	39.0
<b>Total</b>	84	84.0	16	16.0	100	100.0

Pearson  $\chi^2:7,086$ ; s.d.:1;  $p=0,008$ ; Minimum expected value: 6,244; Proportion of cells with an expected value less than 5: 0%  
Coefficient of contingency C: 0.257; Cmax:0.50; Cters:2.00; Calculated coefficient of correlation r: 0.514 (Moderate).

The results of the Pearson chi-square analysis performed to determine the relationship between the variable of having COVID-19 status and the use of hand sanitizer of participants are presented in table 3. It was found that the use rate of hand sanitizer of the participants who had COVID-19 was 70.5%, and 29.5% did not use any hand sanitizer, while the use rate of hand sanitizer of the participants who did not have COVID-19 was 35.9%, and 64.1% did not use any hand sanitizer. The coefficient of correlation ( $r = .646$ ) calculated by taking into account the coefficient of

contingency ( $C = 0.323$ ) can be interpreted as the relationship between the variable of having COVID-19 status and the use of hand sanitizer at a moderate level. A statistically significant relationship was found between the variable of having COVID-19 status and the use of hand sanitizer ( $\chi^2: 11,616$ ;  $p = 0,001$ ;  $p < 0.05$ ) according to the results of the Pearson chi-square test performed to test the dependence between the variable of having COVID-19 status and the use of hand sanitizer of the participants (Table 3).

**Table 3:** Analysis results for the relationship between the variable of having COVID-19 status and the use of hand sanitizer of participants

Having COVID-19 status	Use Status of Hand Sanitizer					
	Yes		No		Total	
	S	%	S	%	S	%
<b>Yes</b>	43	70.5	18	29.5	61	61.0
<b>No</b>	14	35.9	25	64.1	39	39.0
<b>Total</b>	57	57.0	43	43.0	100	100.0

Pearson  $\chi^2: 11,616$ ; s.d.: 1;  $p = 0,001$ ; Minimum expected value: 16,77; Proportion of cells with an expected value less than 5: 0%  
Coefficient of contingency C: 0.323; Cmax: 0.50; Cters: 2.00; Calculated coefficient of correlation r: 0.646 (Moderate).

The results of the Pearson chi-square analysis performed to determine the relationship between the variable of having COVID-19 status and the frequency of visiting other rooms by the participants are presented in table 4. While 29.5% of the participants who had COVID-19 stated that they did not visit other rooms, 55.7% visited once a day, and 18.8% twice a day or more. We see that the rate of not visiting other rooms by the participants who do not have COVID-19 is 48.7%, the rate of those who visited once a day is 41.0%,

and the rate of those who visited twice a day or more is 10.3%. No statistically significant relationship was found between the variable of having COVID-19 status and the frequency of visiting other rooms ( $\chi^2: 3,773$ ;  $p = 0,152$ ;  $p > 0.05$ ) by the participants according to the results of the Pearson chi-square test performed to test the dependence between the variable of having COVID-19 status and the frequency of visiting other rooms by the participants (Table 4).

**Table 4:** Analysis results for the relationship between the variable of having COVID-19 status and the frequency of visiting other rooms by the participants

Having COVID-19 Status	Frequency of Visiting Other Rooms							
	I don't visit		I visit once a day		I visit two or more times a day		Total	
	S	%	S	%	S	%	S	%
<b>Yes</b>	18	29.5	34	55.7	9	14.8	61	61.0
<b>No</b>	19	48.7	16	41.0	4	10.3	39	39.0
<b>Total</b>	37	37.0	50	50.0	13	13.0	100	100.0

Pearson  $\chi^2: 3,773$ ; s.d.: 1;  $p = 0,152$ ; Minimum expected value: 5,07; Proportion of cells with an expected value less than 5: 0%

The results of the Pearson chi-square analysis performed to determine the relationship between the variable of having COVID-19 status and the frequency of allowing visitors to the rooms by the participants are presented in table 5. While it was found that 26.2% of the participants who had COVID-19 did not allow visitors to their rooms, 54.1% allowed once a day, and 19.7% allowed twice a day or more, it was determined that 51.3% of the participants who did not have COVID-19 did not allow visitors to their rooms, 35.9% allowed once a day, and 12.8% allowed twice a day or more. The coefficient of correlation ( $r = .646$ ) calculated by taking into account the coefficient of

contingency ( $C = 0,247$ ) can be interpreted as the relationship between the variable of having COVID-19 status and the frequency of allowing visitors by the participants at a moderate level. A statistically significant relationship was found between the variable of having COVID-19 status and the frequency of allowing visitors ( $\chi^2: 6,841$ ;  $p = 0,039$ ;  $p < 0.05$ ) by the participants according to the results of the Pearson chi-square test performed to test the dependence between the variable of having COVID-19 status and the frequency of allowing visitors by the participants (Table 5).

**Table 5:** Analysis results for the relationship between the variable of having COVID-19 status and the frequency of allowing visitors to the rooms by the participants

Having COVID-19 status	Frequency of Allowing Visitors to Their Rooms							
	I allow no visitors		I allow once a day		I allow twice a day or more		Total	
	S	%	S	%	S	%	S	%
<b>Yes</b>	16	26.2	33	54.1	12	19.7	61	61.0
<b>No</b>	20	51.3	14	35.9	5	12.8	39	39.0
<b>Total</b>	36	36.0	47	47.0	17	17.0	100	100.0

Pearson  $\chi^2: 6,841$ ; s.d.: 2;  $p = 0,039$ ; Minimum expected value: 6,63; Proportion of cells with an expected value less than 5: 0%  
Coefficient of contingency C: 0.247; Cmax: 0.50; Cters: 2.00; Calculated coefficient of correlation r: 0.494 (Moderate).

## DISCUSSION

During the COVID-19 pandemic period people over 65 years old and those with diseases that require long-term treatment such as cancer, chronic respiratory disease, cardiovascular diseases, and diabetes experienced more disadvantages, and their mortality rates are also rising. In the study of Ayhan et al., a total of 118 gerontological patients were included, and the mean age of the patients was 74. Hypertension (41.5%), diabetes (30.0%) and dementia (18.6%) were the most common comorbid diseases in this gerontological patient group (Ayhan et al., 2022). In addition to this, residential homes, which generally provide long-term care services to mentally and physically disabled elderly people, are vulnerable areas with more exposure to infection since elderly individuals are more affected by the adverse effects of this disease and shared living arrangements, (Machida et al. 2020).

In a study by Yeşilyurt and Dicle (2021), it was reported that the rate of those who answered that they would throw their used mask in the closest wastebasket was 86.8%, and the rate of those who said that they would throw it in the medical waste bin was 9.9%. It is seen that the answers given by the residents of the residential home have similar rates to the answers given by the students of the faculty of health sciences.

In a study by Ünal et al. (2020), they stated that the pre-pandemic handwashing habit with soap and water for at least 20 seconds was 88.9%, while the post-pandemic handwashing habit changed to 98.4% (19) This study has similar rates, the reason for the slightly higher rate in the study by Ünal et al. (2020) can be interpreted as the fact that the population they work with consists of healthcare professionals with a certain hygiene perception. However, to prevent the spread of COVID-19 infection, physical distance should be ensured in group activities in the residential home, and when

it is not possible, it is recommended to cancel group activities (WHO, 2020b). All traveling activities outside the residential home and some non-essential services (such as barber, hairdresser, etc.) provided to the residential home should be canceled or postponed to an appropriate time (WHO, 2020c). In this study 83% of the participants answered "no" to the question of whether residential home residents participated in several group activities routinely held in pre-pandemic residential homes, as well as post-pandemic. Social activities are extremely important for people in residential homes to spend quality time.

Karameşe et al. (2021) examined 7853 symptomatic cases in their COVID-19 prevalence study conducted in three neighboring provinces in Eastern Anatolia. 156 (41.8%) of them were male and 217 (58.2%) were female (Karameşe et.al. 2020). In our study, we determined that 61 (61%) of the participants were diagnosed with COVID-19 during the pandemic, and 31 (51.7%) of them were male and 30 (48.3%) were female. Although the gender-based distribution of COVID-19 positivity was similar in our study, the overall positivity was considerably higher than in the existing studies. Its reason can be interpreted as our study's constitution of a disadvantaged sample group with a high rate of chronic diseases. In their study, Yeşilyurt and Dicle (2021) reported that 30.2% of the people living in the same house had COVID-19 disease, and 69.8% did not have COVID-19 disease (19). In our study, we determined that 45 (45.0%) of them got COVID-19 disease from their friends with whom they shared the same room in a residential home, while 55 (55.0%) of them did not get any COVID-19 disease.

Although there are similarities in the studies, since our study covers the recent period, it can be interpreted as an increase due to the increase in the spread rate with the effect of new COVID-19 variants. Çiçek et al. (2021) reported a significant difference between the age of the participants and the hand hygiene sub-dimensions (Çiçek et.al., 2021). In our study also no statistically significant relationship was found between the variable of

having COVID-19 status and the frequency of daily hand washing. One of the recommendations of The International Association of Gerontology and Geriatrics (IAGG) during the isolation period to prevent COVID-19 in the elderly and keep them healthy was "Actively (A) wash your hands with sanitizer or soap." (Chettri et.al. 2020).

When examining the transmission characteristics of SARS-CoV-2 and the previous studies on viruses that spread rapidly and cause pandemics such as influenza virus and coronavirus, the most effective protection measures are expressed as mask use and hand hygiene (Leung et.al. 2020; Arai et.al. 2021). In international studies, there exist studies in which the tendency to have protective behaviors against the COVID-19 pandemic differs according to the educational level (Arai et.al. 2021; Chen et.al. 2020). It is stated that fear and anxiety against COVID-19 are generally effective in mask use and hygiene measures (Panchal et.al., 2020; Voltmer et.al. 2021). Yeşilyurt and Dicle (2021) reported in their study that 43.0% of the participants answered the question of how many masks they use daily, in terms of their attitudes and behaviors regarding mask use, as "I use only one mask" and 28.3% of the participants answered the question of at what intervals they replace their masks, as "I don't replace all day long". In a study by Tang and Wong (2004), it is stated that individuals aged 50 to 59 were more attentive to mask use compared to other age groups.

In Sweden, young people stated that mask use is to protect both themselves and those around them, but the elderly only to protect themselves (Asri et.al. 2021). In this sense, another possibility is that residents diagnosed with COVID-19 have developed a faith that they do not need to protect themselves. Palcu et al. (2022) stated that mask use has a restrictive effect as well as a protective effect for individuals. Therefore, reducing measures such as mask use, maintaining social distance by individuals who have had the disease, and keeping social distance can be considered the need to get away from the restrictive situation. The reason why those living in residential homes who have COVID-



19 infection wear more masks indoors can be interpreted as the abundance of internal stimuli, peer pressure, or the perception of hygiene acquired over time, and the importance of wearing masks indoors where shared common areas are higher. Instead of allowing visitors to residential homes, alternative methods such as telephone, video conferences should be developed and used (CDC, 2019). All visitors coming to the residential home should be asked by the nurses in charge whether they show any symptoms in terms of COVID-19 risk factors. Especially entrance of visitors who show symptoms of an acute respiratory tract infection, fever ( $\geq 38^{\circ}\text{C}$ ), or any of the symptoms of COVID-19 should not be allowed into the building. If visitors are required to be admitted due to mandatory reasons (such as close relatives of seriously ill patients, emotional and psychological care), these people should be warned about respiration and hand hygiene, they should be allowed to approach a maximum distance of 1 to 2 meters, and they should be ensured to leave the building immediately after the visit (WHO, 2020d).

## **CONCLUSION AND RECOMMENDATIONS**

In this study, the hygiene habits of residential home residents during the COVID-19 pandemic process were examined. Although hygiene behaviors, which are significant in reducing and preventing transmission, have reached ideal levels during the pandemic period, it is understood that they should behave more carefully in terms of mask use and social distancing. In general, it is seen that people with improved hygiene behaviors are protected from COVID-19 infection or display the required sensitivity in this regard. All employees in charge who share the same environment with the nursing home residents must display the same sensitivity about hand hygiene, mask, and distancing triplets. It is required to provide more education on hygiene behaviors to individuals in high-risk groups such as nursing homes.

## **Research Limitations**

The limitation of this study was that individuals staying in nursing homes did not accept face-to-face interviews during the pandemic period, and therefore, this study was conducted with fewer elderly people than expected. As another limitation, data was collected only from two nursing homes located in two different cities. Therefore studies from different geographical regions of Turkey, and a more representative national study can be performed.

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## **Ethics Committee Approval**

This study is approved by Muş Alparslan University Local Ethics Committee of an university (date: 04.01.2021, number: 49/1). Before starting the questionnaires, the informed consent form was read to the individuals and their consent was obtained by signing the "Informed Consent Form".

## **Funding and Conflict of Interest**

There is no funding for this study. All authors declare that there is no conflict of interest.

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