

# Relationship Between Covid-19 Fear and Ageism

## Covid-19 Korkusu ve Yaşlı Ayırıcılığı Arasındaki İlişki

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### Öz

**Amaç:** COVID-19 vakalarının klinik seyri ve semptomların ağırlığı vakaya göre değişse de kronik hastalığı olanlar ve yaşlı bireyler için daha fazla risk teşkil ettiği incelenen vaka profillerinde görülmektedir. Yaşlı bireyleri COVID-19'dan korumak amacıyla hükümetler bazı kısıtlamalar getirmiştir. Bu kısıtlamaların yanlış değerlendirilmesinin yaşlı ayrımcılığı tutumlarına yol açabileceği düşünülmektedir. Bu çalışma, toplumun COVID-19 korkusu ile yaşlı ayrımcılığına yönelik tutumları arasındaki ilişkiyi belirlemeyi amaçlamaktadır.  
**Hastalar ve Yöntem:** Tanımlayıcı tipte tasarlanan bu çalışma gönüllü 18-65 yaş arası 683 kişi ile yapıldı. Araştırmanın verileri Fraboni Yaşlı Ayrımcılığı Ölçeği ve COVID-19 Korku Ölçeği kullanılarak toplandı. Veriler 1-20 Haziran 2020 tarihlerinde toplandı.  
**Bulgular:** Ortalama Fraboni Yaşlı Ayrımcılığı Ölçeği ve COVID-19 Korku Ölçeği puanları sırasıyla 67.87 ± 6.15 ve 18.81 ± 6.16 bulundu. Sonuçlar, COVID-19 korkusu ile yaşlılık arasında zayıf ve negatif bir ilişki olduğunu gösterdi.  
**Sonuç:** Araştırma sonuçlarımız, bu çalışmaya katılan bireylerin yaşlılara karşı olumlu bir tutum içinde olduklarını göstermektedir. Bireylerin düşük düzeyde COVID-19 korkusu yaşadığı tespit edildi. Bu sonuç, bireylerin pandemiye yeterince önemsemediğini veya alınan önlemlerin yeterli olduğunu göstermektedir. COVID-19 korkusu ile yaş ayrımcılığı arasında zayıf ve negatif bir ilişki bulundu..

**Anahtar Kelimeler:** COVID-19, yaşlı ayrımcılığı, yaşlı, korku

### Abstract

**Aim:** The clinical course of COVID-19 cases and the severity of symptoms vary according to the case. However, it has been seen in the cases examined that it poses a greater risk for those with chronic diseases and elderly individuals. In order to protect elderly individuals from COVID-19, governments have introduced some restrictions. It is thought that the wrong evaluation of these restrictions may lead to attitudes of ageism. This study aimed to determine the relationship between society's fear of COVID-19 and attitudes towards ageism.

**Patients and Methods:** This work is designed in descriptive type. This study was conducted with volunteers between the ages of 18-65 683 people. The data of the study were collected using the Fraboni Scale of Ageism and COVID-19 Fear Scale. Data were collected on 1-20 June 2020.

**Results:** The mean Fraboni Scale of Ageism and COVID-19 Fear Scale scores were 67.87±6.15 and 18.81±6.16, respectively. The results showed a weak and negative correlation between COVID-19 fear and ageism.

**Conclusion:** Our research results show that the individuals participating in this study have a positive attitude towards the elderly. Individuals were found to experience low levels of COVID-19 fear. This result suggests that individuals do not care enough about the pandemic or that the measures taken are sufficient. A weak and negative correlation was found between COVID-19 fear and ageism.

**Key words:** COVID-19, ageism, elderly, fear

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## INTRODUCTION

In December 2019, unidentified cases of pneumonia was reported to appear in Wuhan City, Hubei province of China (1), and that the cause of lower respiratory tract involvement in infected people was novel coronavirus-2019 within the genus Betacoronavirus. The virus is called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or coronavirus disease 2019 (COVID-19) (2). In a short time, the virus has spread to other countries as a result of human interaction, the number of cases continued to increase. In light of current data, more than 65 million cases are reported globally as of Dec 2020 (3).

The transmission of the virus can extend from 2 to 14 days per case (2). It spreads through the air on the back of increased coughing or sneezing, and even talking and breathing; transmission occurs through physical contact with respiratory secretions both directly and indirectly from contact with an infected surface. Information from the World Health Organization affirms that the coronavirus is highly infectious (4). The prognosis and symptoms of the patients are more severe in those with chronic disease and in older individuals (1). In the early stages of all epidemics, quarantine is considered as an effective solution (5). Whilst COVID-19 may not have a fatal trajectory for all, the illness, and the ease of spread in itself has been significant in precipitating emergency measures of quarantine, social distancing and lockdown (4).

Therefore, various restrictions were imposed in many countries (6). In Turkey, the circular issued by the Ministry of Interior on March 21, 2020, individuals 65 years or older were restricted from leaving their residence, walking in open spaces, parks, and streets, and traveling by public transport (7).

The social distance rules applied due to the pandemic may result in neglect, loneliness, isolation, depression, anxiety, and abuse. This may pose more problems in older individuals (8). During the pandemic, evidence points to the discourse of ageism, which complicates the lives of older people (9). In some nursing homes, the available care has proven to be inadequate (10). The curfew imposed on individuals older than 65 years in Turkey was reported to cause negative attitudes (11). Comments on social media often belittle older individuals, express them as worthless, and suggest that the health spending on this age group is excessive (9). The selection of individuals in need of intensive care by date of birth

due to lack of treatment and care resources during the pandemic also refers to the ageism approach in health care (12). Fear of COVID-19 may prevent individuals from thinking clearly and rationally (13). It is believed that misjudging the restrictions imposed on older individuals could also lead to ageism attitudes because of this fear. This study aimed to determine the relationship between society's fear of COVID-19 and attitudes toward ageism.

## MATERIALS AND METHOD

This study was conducted in descriptive and correlational type. The study was carried out between 1-30 June 2020. The study included 683 volunteers aged 18–65 years, which was accessible through Google Forms. Approval was obtained from the Non-Pharmaceutical and Medical Device Research Ethics Committee (date: May 22, 2020; No: 2020/026).

**Sociodemographic Characteristics Questionnaire:** The researchers developed a 10-item questionnaire, in accordance with the literature, containing age, sex, marital status, educational status, presence of disease, smoking, and coronavirus information.

**COVID-19 Fear Scale:** Turkish validity and reliability study of the scale developed by Ahorsu et al. (2020) was performed by Satici et al. (2020). The scale reliable instrument to assess the fear of COVID-19. It is a one-dimensional seven-item, fivepoint Likert-type scale, with definitely disagree being 1 point; disagree, 2 points; undecided, 3 points; agree, 4 points; and definitely agree, 5 points. The Cronbach alpha value of the original scale is 0.82 (13,14) Satici et al. (2020) evaluated the Cronbach alpha, McDonald omega, Guttman lambda, and composite reliability, and found that the overall reliability coefficient for the total scale was 0.84. The lowest and highest scores of the scale were 7 and 35, respectively. COVID-19 fear increases as the score increases (14).

**Fraboni Scale of Ageism (FSA):** The FSA is a 29-item scale that addresses elder discrimination in a multidimensional structure. This scale measures the discriminatory attitudes of individuals towards the elderly. The Turkish adaptation of the scale developed by Fraboni et al. (1990) was performed by Kutlu et al. (2012). As a result of the reliability analysis, four items were removed from the scale consisting of 25 items, with definitely disagree being 1 point; disagree, 2 points; agree, 3 points; and definitely agree, 4 points. For the Turkish scale, the value of  $\alpha$  was 0.84, and the reliability coefficient obtained by the split-half method was 0.81. The lowest and highest scores of the scale

were 25 and 100, respectively. Ageism increases as the score increases. The scale has subdimensions of antilocution, avoidance, and discrimination (15,16).

### Statistical Analyses

The SPSS 25 statistical program was used to analyze the data. The number and percentage distributions and mean and standard deviation values were calculated. According to the type of the demographic variable of the participants, the independent sample t-test between the groups, ANOVA for three or more groups, and Tukey test in multiple comparisons were used. The relationship between two continuous variables was evaluated using the Pearson correlation coefficient, and the Spearman correlation coefficient was used in cases where the parametric preconditions could not be fulfilled. Multiple linear regression analysis was performed by taking the COVID-19 Fear Scale total as the dependent variable, and  $p < 0.05$  and  $p < 0.01$  levels were considered statistically significant.

## RESULTS

In this study, the sociodemographic variables of the participants were compared with the mean scores from the FSA and COVID-19 Fear Scale. The mean antilocution, avoidance, and discrimination dimension scores were  $28.66 \pm 4.06$ ,  $25.23 \pm 2.51$ , and  $13.98 \pm 2.41$ , and the mean FSA and COVID-19 Fear Scale total scores were  $67.87 \pm 6.15$  and  $18.81 \pm 6.16$ , respectively (Table 1).

The mean age of the participants was  $28.89 \pm 9.27$  years. Of the participants, 70.9% were women, 55.9% were single, 37.2% had a Bachelor's degree, 91.7% had no physical illness, 75.3% did not smoke, 71.2% believed that COVID-19 mostly affects individuals older than 65 years, 95.3% felt that the restrictions imposed on individuals older than 65 years during the pandemic was correct, 81.3% were not living with an individual older than 65 years, 53.9% did not have a family member older than 65 years who needs their needs met (Table 2).

No statistically significant correlation was found between sex, marital status, having a diagnosed physical illness, smoking, the idea that COVID-19 affects the elderly the most, the presence of an individual older than 65 years who has to meet his/her needs, the opinion on the restrictions imposed on individuals older than 65 years, and the mean total and subdimension scores of the ageism scale ( $p > 0.05$ ).

A statistically significant difference was found in the avoidance subdimension of the FSA based on the educational status ( $p < 0.05$ ). After further analysis, a difference was found between primary school graduates and associate degree graduates. A statistically significant difference was found in the FSA antilocution subdimension based on the situation of living in the same house with an individual older than 65 years ( $p < 0.05$ ).

In the evaluation of the COVID-19 fear, no statistically significant difference was found between the groups in terms of sex, marital status, having a diagnosed physical illness, smoking, living together with individuals older than 65 years, the idea that COVID-19 affects the elderly the most, the opinion on the restrictions imposed on individuals older than 65 years, the presence of an individual older than 65 years who has to meet his/her needs ( $p > 0.05$ ).

The fear of COVID-19 differed statistically significantly between sexes ( $p < 0.05$ ). The fear of COVID-19 differed significantly based on the educational status ( $p < 0.05$ ). After further analysis, a significant difference was found between associate degree graduates and those with a Bachelor's degree.

A statistically significant positive relationship was found between the ageism scale discrimination and antilocution subdimension ( $r = 0.393$ ;  $p = 0.000$ ). A statistically significant positive relationship was found between the ageism scale total score and antilocution subdimension ( $r = 0.843$ ;  $p = 0.000$ ). A statistically significant negative correlation was found between the ageism scale antilocution subdimension

**Table 1.** Mean scores of the Fraboni Scale of Ageism, its subdimensions, and COVID-19 Fear Scale (n= 683).

Fraboni Scale of Ageism and mean subscale scores and COVID-19 Fear Scale	$\bar{x} \pm SD$	Min–Max
Antilocution	28.66±4.06	13.00–44.00
Avoidance	25.23±2.51	16.00–32.00
Discrimination	13.98±2.41	8.00–21.00
Fraboni Scale of Ageism total score	67.87±6.15	43.00–90.00
COVID-19 Fear Scale	18.81±6.16	7.00–35.00

**Table 2.** Relationship Between Tumor Budding and Pathological Data

<b>Sociodemographic variables</b>	<b>Frequency (n)</b>	<b>Percent (%)</b>	<b>Antilocution score mean <math>\pm</math>SD</b>	<b>Avoidance score mean <math>\pm</math>SD</b>	<b>Discrimination score mean <math>\pm</math>SD</b>	<b>Fraboni total score mean<math>\pm</math>SD</b>	<b>COVID-19 fear total score mean<math>\pm</math>SD</b>
<b>Sex</b>							
Male	199	29.1	28.53 $\pm$ 4.15	25.24 $\pm$ 2.59	13.75 $\pm$ 2.34	67.53 $\pm$ 6.39	16.81 $\pm$ 6.01
Female	484	70.9	28.71 $\pm$ 4.02	25.23 $\pm$ 2.48	14.07 $\pm$ 2.43	68.01 $\pm$ 6.05	19.64 $\pm$ 6.04
Test			t= -0.521	t= 0.076	t= -1.586	t= -0.933	t= -5.571
p-values			0.600	0.940	0.110	0.351	0.001
<b>Marital status</b>							
Married	301	44.1	28.35 $\pm$ 4.25	25.34 $\pm$ 2.51	13.95 $\pm$ 2.62	67.64 $\pm$ 6.55	19.17 $\pm$ 6.41
Unmarried	382	55.9	28.9 $\pm$ 3.89	25.14 $\pm$ 2.51	13.99 $\pm$ 2.24	68.03 $\pm$ 5.82	18.53 $\pm$ 5.95
Test			t= -1.757	t= 1.308	t= -0.222	t= -0.820	t= 1.358
p-values			0.080	0.300	0.830	0.413	0.180
<b>Educational status</b>							
Primary education	56	8.2	27.46 $\pm$ 4.79	26.05 $\pm$ 2.46	13.86 $\pm$ 2.32	67.37 $\pm$ 6.55	19.89 $\pm$ 6.47
High school	67	9.8	28.67 $\pm$ 4.12	25.31 $\pm$ 2.41	13.33 $\pm$ 2.98	67.31 $\pm$ 7.01	19.54 $\pm$ 7.27
Vocational high school	215	31.5	28.52 $\pm$ 4.09	24.94 $\pm$ 2.46	13.93 $\pm$ 2.21	67.38 $\pm$ 6.12	19.42 $\pm$ 6.42
Undergraduate	254	37.2	28.89 $\pm$ 3.82	25.36 $\pm$ 2.47	14.04 $\pm$ 2.4	68.29 $\pm$ 5.69	17.89 $\pm$ 5.45
Graduate	91	13.3	29.07 $\pm$ 4	24.98 $\pm$ 2.73	14.46 $\pm$ 2.42	68.51 $\pm$ 6.51	18.75 $\pm$ 6.09
Test			F= 1.730	F= 2.642	F= 2.256	F= 1.107	F= 2.645
p-values			0.140	0.033 <sup>a</sup>	0.062	0.352	0.03 <sup>b</sup>
<b>Do you have any diagnosed physical illnesses?</b>							
Yes	57	8.3	28.75 $\pm$ 4.68	25.53 $\pm$ 2.32	13.98 $\pm$ 2.39	68.26 $\pm$ 7.05	19.51 $\pm$ 5.35
No	626	91.7	28.65 $\pm$ 4	25.2 $\pm$ 2.53	13.98 $\pm$ 2.41	67.82 $\pm$ 6.06	18.75 $\pm$ 6.23
Test			t= 0.186	t= 0.931	t= 0.019	t= 0.510	t= 0.891
p-values			0.850	0.350	0.980	0.610	0.370
<b>Are you a smoker?</b>							
Yes	169	24.7	28.6 $\pm$ 4.57	25.47 $\pm$ 2.43	13.85 $\pm$ 2.72	67.93 $\pm$ 6.67	18.04 $\pm$ 6.71
No	514	75.3	28.68 $\pm$ 3.88	25.15 $\pm$ 2.53	14.02 $\pm$ 2.3	67.84 $\pm$ 5.97	19.07 $\pm$ 5.95
Test			t= -0.204	t= 1.419	t= -0.774	t= 0.141	t= -1.895
p-values			0.850	0.160	0.480	0.888	0.080
<b>Does coronavirus mostly affect individuals older than 65 years?</b>							
Yes	486	71.2	28.55 $\pm$ 3.79	25.27 $\pm$ 2.5	13.88 $\pm$ 2.27	67.71 $\pm$ 5.79	18.69 $\pm$ 5.91
No	197	28.8	28.92 $\pm$ 4.65	25.14 $\pm$ 2.54	14.2 $\pm$ 2.72	68.26 $\pm$ 6.97	19.11 $\pm$ 6.73
Test			t= -1.066	t= 0.615	t= -1.565	t= -0.985	t= -0.794
p-values			0.330	0.540	0.150	0.325	0.450
<b>Do you think the ban imposed on individuals older than 65 years during the coronavirus pandemic is rightful?</b>							
Yes	651	95.3	28.65 $\pm$ 4.06	25.24 $\pm$ 2.49	13.97 $\pm$ 2.4	67.49 $\pm$ 6.09	18.76 $\pm$ 6.14
No	32	4.7	28.91 $\pm$ 3.95	25.13 $\pm$ 3	14.16 $\pm$ 2.59	67.95 $\pm$ 6.16	19.97 $\pm$ 6.43
Test			t= -0.353	t= 0.242	t= -2.432	t= -0.303	t= -1.088
p-values			0.720	0.810	0.030	0.762	0.280
<b>Do you live together with an individual over the age of 65?</b>							
Yes	128	18.7	29.55 $\pm$ 4.21	25 $\pm$ 2.67	13.94 $\pm$ 2.62	67.49 $\pm$ 6.09	18.19 $\pm$ 5.87
No	555	81.3	28.68 $\pm$ 4.02	25.28 $\pm$ 2.47	13.99 $\pm$ 2.36	67.95 $\pm$ 6.16	18.96 $\pm$ 6.22
Test			t= -3.322	t= -1.149	t= -0.203	t= -0.761	t= -1.275
p-values			0.040	0.250	0.840	0.447	0.200
<b>Did you have a family member older than 65 years that you had to meet his/her needs during the restriction period?</b>							
Yes	315	46.1	28.75 $\pm$ 4.17	25.18 $\pm$ 2.49	13.99 $\pm$ 2.49	67.92 $\pm$ 6.17	18.97 $\pm$ 6.28
No	368	53.9	28.58 $\pm$ 3.96	25.27 $\pm$ 2.53	13.96 $\pm$ 2.34	67.81 $\pm$ 6.14	18.68 $\pm$ 6.05
Test			t= 0.557	t= -0.440	t= 0.139	t= 0.242	t= 0.623
p-values			0.580	0.660	0.890	0.809	0.530
Total score	683	100					

<sup>a</sup>Primary education degree is different from vocational high school degree. <sup>b</sup>Vocational high school degree is different from Undergraduate degree.

**Table 3.** Relationship between age, COVID-19 fear, elder discrimination, and its subdimensions

n= 683		Age	Antilocution	Avoidance	Discrimination	Fraboni Scale of Ageism total score
Age						
Antilocution	r	-0.075				
Avoidance	r	0.027	0.073			
Discrimination	r	-0.030	0.393*	0.010		
Fraboni Scale of Ageism Total Score	r	-0.050	0.843*	0.460*	0.655*	
COVID-19 Fear Scale	r	-0.009	-0.127*	-0.036	-0.126*	-0.148

p\* &lt; 0,05

**Table 4.** Regression of COVID-19 fear with ageism subdimensions.

COVID-19 fear (Dependent variable)	Coefficient	p
Constant	27.728	0.000
Antilocution	-0.135	0.032
Avoidance	-0.071	0.446
Discrimination	-0.233	0.027

R= ,154 R2= ,024 F= 5,527 D.W 1,93

and COVID-19 Fear Scale ( $r=-0.127$ ;  $p=0.001$ ). A statistically significant positive correlation was found between the ageism scale total score and avoidance subdimension ( $r=0.460$ ;  $p=0.000$ ). A statistically significant positive correlation was found between the ageism scale total score and discrimination subdimension ( $r=0.655$ ;  $p=0.000$ ). A statistically significant negative correlation was found between the ageism scale discrimination subdimension and COVID-19 Fear Scale ( $r=-0.126$ ;  $p=0.001$ ). A statistically significant negative relationship was found between the ageism scale score and COVID-19 Fear Scale ( $r=-0.148$ ;  $p=0.000$ ) (Table 3).

When the COVID-19 fear is a dependent variable, the following regression equation can be used by 2,4% explanatory ratio ( $p<0.05$ ) (Table 4):  $\hat{y} = 27.728 - 0.135 \times \text{Antilocution} - 0.071 \times \text{Avoidance} - 0.233 \times \text{Discrimination} - 0.135$ .

## DISCUSSION

In the avoidance subdimension of the FSA, the scores of primary education degree were higher than those of vocational high school degree. Contrary to these findings, many studies in the literature stated that ageism increases as education level increases (17- 20). It can be stated that what is known about the concept of old age changes with the level of education, and as a result, positive attitudes towards the elderly improves with the increase in the level of education. Those living in the same home with an individual older than 65 years were found to have higher antilocution

subdimension score. Individuals living in Turkey have a stereotypical view of the elderly due to the traditional structure and may exhibit a discriminatory attitude towards the older individual they live with. In the study by Başer and Cingil (2018), living together with older individuals was found to positively affect the attitude towards the elderly, but without any effect on ageism (21).

Fear of COVID-19 was also found to be higher in women, which may be due to the fact that women are more emotional and fragile than men. Some studies have shown that sex does not affect COVID-19 fear (13, 22). This is believed to be due to cultural differences in Turkey. The COVID-19 Fear Scale score was higher in associate graduates than in those with a Bachelor's degree. The study by Reznik et al. (23) found that university graduates had a higher fear of COVID-19. Our study suggests that individuals with high education levels were more successful in managing the pandemic because COVID-19 fear decreases with increasing education level.

A significant, weak, negative relationship was found between ageism attitudes and COVID-19 Fear Scale scores of the participants. Pandemics have many psycho-social effects, such as health anxiety, fear, panic, adjustment disorders, depression, and insomnia, and the elderly are more affected by these factors because of their vulnerability. Although social isolation for individuals older than 65 years is an important strategy in combating COVID-19, the variation of stress and fear experienced by young

individuals has affected attitudes towards the elderly during this process (24). Creating a perception such as the exclusion of elderly people from social life and the cause of contagion in the epidemic has brought a new dimension to the concept of the elderly. It is thought that this discrimination will lead to the emergence of conditions such as social isolation, loneliness and depression in the elderly (25).

The limitation of this study is that the results are representative of only one city. Conducting studies representing the country with a larger sample from different provinces will contribute to the literature.

## CONCLUSION

Our research results show that the individuals participating in this study have a positive attitude towards the elderly. Individuals were found to experience low levels of COVID-19 fear. This result suggests that individuals do not care enough about the pandemic or that the measures taken are sufficient. A weak and negative correlation was found between COVID-19 fear and ageism.

Fear of COVID-19 was found to be higher in female than in male. COVID-19 fear levels of vocational high school degree graduates were found to be higher than undergraduate degree.

The recommendations to consolidate positive attitudes toward the elderly and reduce negative attitudes of society during the COVID-19 pandemic are as follows:

- Public service ads should be created and disseminated to emphasize that older individuals are part of society, and that young people will one day grow old.
- The associations concerned with the elderly should conduct activities to raise awareness of the society about the elderly.
- Individuals in the society should be in constant communication with the elderly by using technological tools and software when they are physically unable to come together.

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