

## LETTER

## Psychiatry

# Evaluation of anxiety and fear of COVID-19 in patients admitted to an ophthalmology outpatient clinic

Dear Editor,

Coronavirus disease 2019 (COVID-19) outbreak has brought gross changes to the community and many studies revealed that stress and anxiety have increased during the pandemic.<sup>1,2</sup>

The new coronavirus has been shown in conjunctival samples, however, ocular transmission has not yet been clearly shown in studies.<sup>6,7</sup> Apart from viral load in secretions, the ophthalmological examination itself poses a high risk because of close contact with the patient and that may lead to fear of being infected and anxiety.

Therefore, we aimed to determine the fear of COVID-19 and anxiety levels of patients admitted to an ophthalmology outpatient clinic.

We recruited 223 patients in Dicle University Ophthalmology outpatient clinics from 15 July 2020 to 15 September 2020. Data were collected for sociodemographic features, fear of COVID-19, and information about following the safety measures. Patients were evaluated using Hamilton Anxiety Rating Scale (HAM-A).<sup>8</sup> Data were analysed through the Statistical Package for the Social Sciences (SPSS) Inc version 22.0 (Chicago, IL, USA) package software.

Of the participants, 101 were female, and 122 were male. 81.6% of the patients felt fear of COVID-19 at various degrees when they visited the hospital. Among the questions related to the fear of COVID-19, the highest rate was found in the fear of being infected, followed by the fear of spreading the virus to others. Fifty-eight per cent of the patients had postponed hospital admission as a result of the pandemic.

The total mean score in the HAM-A was  $9.28 \pm 8.717$ , and 51.6% of the patients scored  $>6$ , which indicates clinical significance. Women and single participants had significantly higher anxiety than men and married/civil partnership respectively. Students also had higher anxiety compared with other employment groups. No difference was shown in HAM-A scores between the patients who postponed their admission because of the coronavirus and those who did not (Table 1). However, the degree of their fear of COVID-19 when visiting the hospital, was significantly higher in the group who postponed their admission ( $P < .01$ , Mann-Whitney test). Age, education and fear of COVID-19 when visiting the hospital significantly correlated with HAM-A scores ( $P < .01$ ).


Our study revealed that anxiety was high among the patients who visited our ophthalmology outpatient department. More than half of the participants had clinically significant anxiety and many patients felt fear of COVID-19 when they visited the hospital.

Özdin and Özdin found that 45.1% of the participants scored higher than the cut-off point for anxiety during the COVID-19 pandemic and anxiety levels were significantly higher among female participants, which are similar to our result.<sup>9</sup>

Our study showed slightly higher anxiety levels compared with previous studies which reported anxiety rates from 6.33% to 50.9%.<sup>1</sup> We can suggest that visiting an eye clinic might be related to high levels of anxiety in these patients as anxiety was significantly related to the fear of COVID-19 in the hospital and the postponement of hospital admission. However, it is still unclear whether eye examination itself affects anxiety. Because no difference was found in anxiety between those who believed that the coronavirus could be transmitted via eyes and those who did not.

Anxiety scores were significantly high among those who had fear of COVID-19 in the hospital and those who postponed hospital visits. The degree of fear was positively correlated with the anxiety scores. Similar to our study, many studies demonstrated that fear of the pandemic is associated with delayed access to health services<sup>10</sup> and hospital admissions even for emergency cases have been decreased.<sup>3-5</sup> Our findings support that coronavirus fear and anxiety play a role in avoiding hospital admissions as it shows that the degree of fear of COVID-19 was higher in those who delayed their hospital visit and it was positively correlated with anxiety levels.

This study is the first to investigate fear and anxiety in an eye clinic during the COVID-19 outbreak to the best of our knowledge. Apart from previous ones supporting the increased anxiety levels in the pandemic, it highlights that anxiety may have caused a problem in the proper access to health services.

Elif Ateş Budak<sup>1</sup> 

Mine Karahan<sup>2</sup>

Çağla Çilem Han<sup>3</sup>

<sup>1</sup>Department of Psychiatry, Faculty of Medicine, Dicle University, Diyarbakir, Turkey

<sup>2</sup>Department of Ophthalmology, Faculty of Medicine, Dicle University, Diyarbakir, Turkey

<sup>3</sup>Department of Ophthalmology, Antalya Kepez State Hospital, Antalya, Turkey

## Correspondence

Elif Ateş Budak, Department of Psychiatry, Faculty of Medicine, Dicle University, Diyarbakir, Turkey.  
Email: eelifates@gmail.com

TABLE 1 HAM-A scores

	HAM-A Mean $\pm$ SD	P
Gender		0.002**
Female	11.25 $\pm$ 9.397	
Male	7.66 $\pm$ 7.781	
Marital status		0.047*
Married/civil partnership	8.46 $\pm$ 8.210	
Single/divorced/widowed	10.91 $\pm$ 9.489	
Employment		0.025*
Regular working	8.81	
Irregular working	8.86	
Unemployed	8.15	
Student	14.13	
Retired	8.25	
Fear of COVID-19		
Fear of being infected		0.000**
No	5.71 $\pm$ 7.002	
Yes	10.66 $\pm$ 8.938	
Fear of suffering from severe illness		0.263
No	8.84 $\pm$ 8.808	
Yes	10.24 $\pm$ 8.501	
Fear of death		0.117
No	8.74 $\pm$ 8.657	
Yes	10.83 $\pm$ 8.778	
Fear of spreading the virus to others		0.432
No	8.91 $\pm$ 8.324	
Yes	9.85 $\pm$ 9.308	
Postponing the hospital admission because of the pandemic		0.001**
No	7.67 $\pm$ 7.900	
Yes	11.54 $\pm$ 9.329	
History of COVID-19 exposure		
Anyone infected around the patient		0.001**
No	7.98 $\pm$ 8.243	
Yes	12.07 $\pm$ 9.102	
Contact with the infected person		0.000**
No	8.21 $\pm$ 8.146	
Yes	15.48 $\pm$ 9.414	
Belief about transmission via eyes		0.128
No/I don't know	8.44 $\pm$ 8.822	
Yes	10.22 $\pm$ 8.543	

Abbreviation: SD, standard deviation.

\* $P < .05$ ; \*\* $P < .01$ .

## ORCID

Elif Ateş Budak  <https://orcid.org/0000-0002-8547-4111>

## REFERENCES

- Xiong J, Lipsitz O, Nasri F, et al. Impact of COVID-19 pandemic on mental health in the general population: a systematic review. *J Affect Disord.* 2020;277:55-64.
- Zürcher SJ, Kerksieck P, Adamus C, et al. Prevalence of mental health problems during virus epidemics in the general public, health care workers and survivors: a rapid review of the evidence. *Front Public Health.* 2020;8:560389. Published 2020 Nov 11.
- Republic of Turkey, Social Security Institution; 2021. [http://www.sgk.gov.tr/wps/portal/sgk/tr/kurumsal/istatistik/aylik\\_istatistik\\_bilgileri](http://www.sgk.gov.tr/wps/portal/sgk/tr/kurumsal/istatistik/aylik_istatistik_bilgileri). Accessed January 13, 2021.
- Birkmeyer JD, Barnato A, Birkmeyer N, Bessler R, Skinner J. The impact of the COVID-19 pandemic on hospital admissions in the United States. *Health Aff (Millwood).* 2020;39:2010-2017.
- Mulholland RH, Wood R, Stagg HR, et al. Impact of COVID-19 on accident and emergency attendances and emergency and planned hospital admissions in Scotland: an interrupted time-series analysis. *J R Soc Med.* 2020;113:444-453.
- Cao K, Kline B, Han Y, Ying GS, Wang NL. Current evidence of 2019 novel coronavirus disease (COVID-19) ocular transmission: a systematic review and meta-analysis. *Biomed Res Int.* 2020;2020:7605453. Published 2020 Oct 24.
- Chu DK, Akl EA, Duda S, et al. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *Lancet.* 2020;395:1973-1987.
- Yazıcı MK, Demir B, Tanrıverdi N, Karaagaoglu E, Yolac P. Hamilton Anksiyete Değerlendirme Ölçeği, değerlendiriciler arası güvenilirlik ve geçerlilik çalışması. *Türk Psikiyatri Derg.* 1998;9: 114-117.
- Özdin S, Bayrak ÖŞ. Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: the importance of gender. *Int J Soc Psychiatry.* 2020;66: 504-511.
- Lazzerini M, Barbi E, Apicella A, Marchetti F, Cardinale F, Trobia G. Delayed access or provision of care in Italy resulting from fear of COVID-19. *Lancet Child Adolesc Health.* 2020;4:e10-e11.