MENTAL HEALTH STATUS, SYMPTOMS AND SLEEP QUALITY OF PATIENTS HOSPITALIZED FOR INFECTION WITH COVID-19

Viczli I¹, Kajos L², Kovács B², Boncz I³, Kívés Z²

Somogy County Mór Kaposi Teaching Hospital Kaposvár, Hungary
 Faculty of Health Sciences, University of Pécs, Pécs, Hungary
 University of Pécs, Budapest, PE, Hungary

OBJECTIVES

The COVID-19 pandemic has been a major problem for public health. The high incidence of post-COVID symptoms continues to be a problem of significance after the pandemic has subsided. Our research aimed to examine the mental health status, post-COVID symptoms, and sleep quality and the factors influencing it among COVID-19-infected people who received hospitalization.

METHODS

A cross-sectional study was conducted in Hungary from 01.09.2022 to 01.02.2023 among patients with COVID-19 infection treated at the Infectious Diseases Department of Somogy County Kaposi Mór Teaching Hospital, selected by simple non-random sampling (n=150). The question groups were sociodemographic variables, health behaviour, and vaccination status. The validated questionnaires included Generalized Anxiety Disorder-7, The Patient Health Questionnaire-9, and the Insomnia Severity Index. Descriptive statistical analysis, independent sample t-test, c2-test, ANOVA, and Spearman correlation analysis (p<0.05) were performed using SPSS 26.0 software.

RESULTS

The average age is 52.8 years, and 44% of the respondents did not have a vaccination against COVID-19. The most common post-covid symptoms are fatigue (76.7%), fatigue due to physical exertion (58%), sleep disorders (50.7%) and weakness (46%). 33.3% have mild depression, 14.7% moderate depression, 6.7% moderate depression and 4.7% severe depression. 29.3% had mild anxiety, 10% had moderate anxiety, and 6.7% (10 people) had severe anxiety. 25.3% have moderate sleep disorders. Moderate and severe sleep disorders were significantly (p=0,003) more common in those who had 7 or more post-covid symptoms (39,1%). Moderate/moderately severe/severe depression was significant (p=0,007) among respondents who needed high flow transnasal oxygen therapy or mechanical ventilation (41,7%). Moderate and severe sleep disorders were significantly (p=0,003) more common in those who had seven or more post-covid symptoms (39,1%). Mild depression (40,0%) and moderate/moderately severe/severe depression (48,7%) were significantly (p<0,001) common among those with moderate/severe sleep disorders.

CONCLUSIONS

Great emphasis must be placed on rehabilitating patients who have been infected.

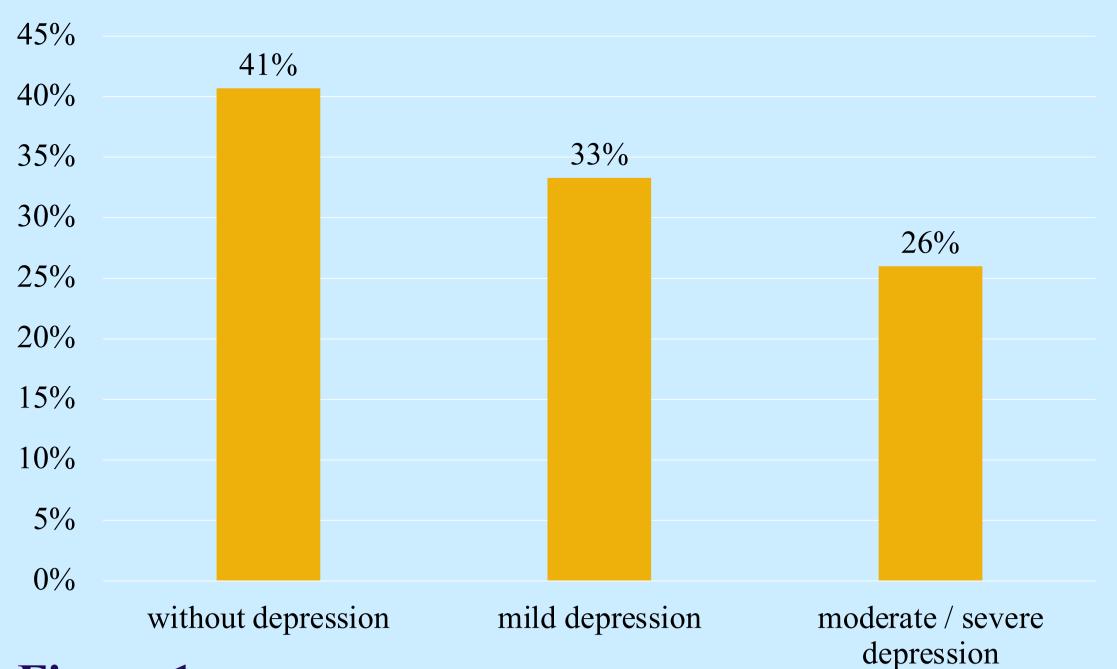


Figure 1.

Distribution of depression (Patient Health Questionnaire)

categories (n=150)

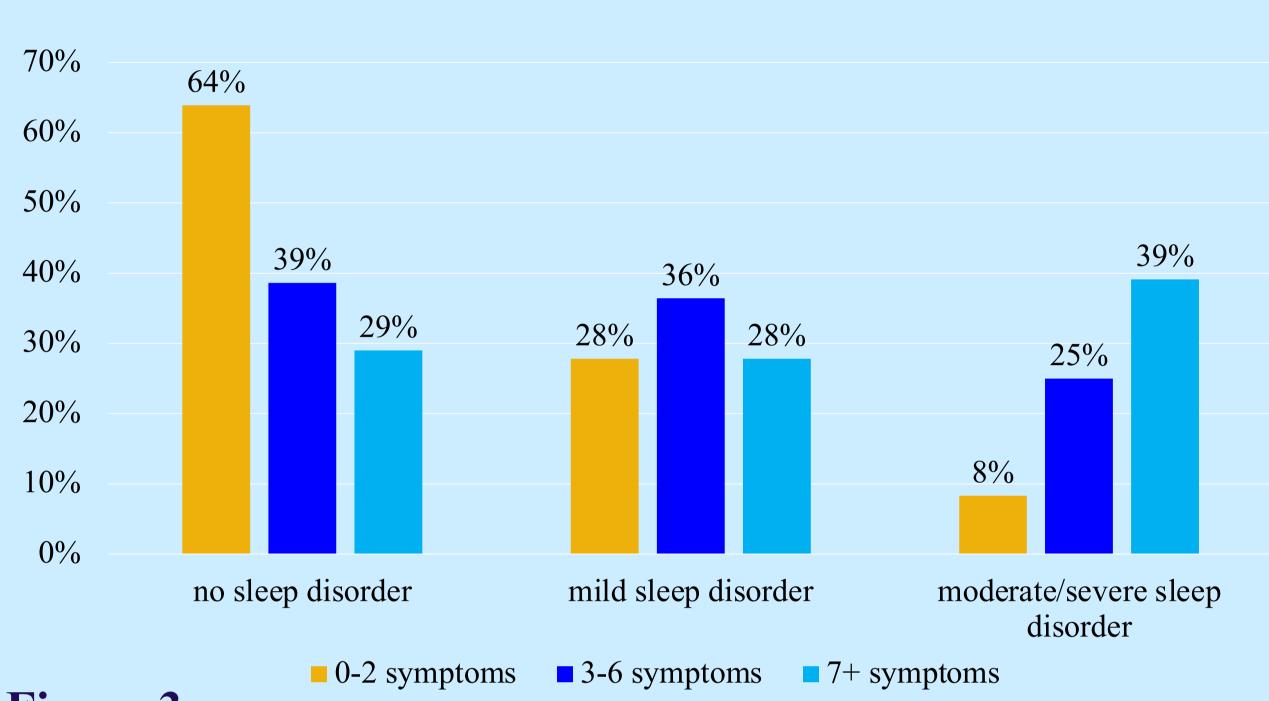


Figure 3.

The distribution of the number of post-covid symptoms based on sleep disorder categories (n=150)

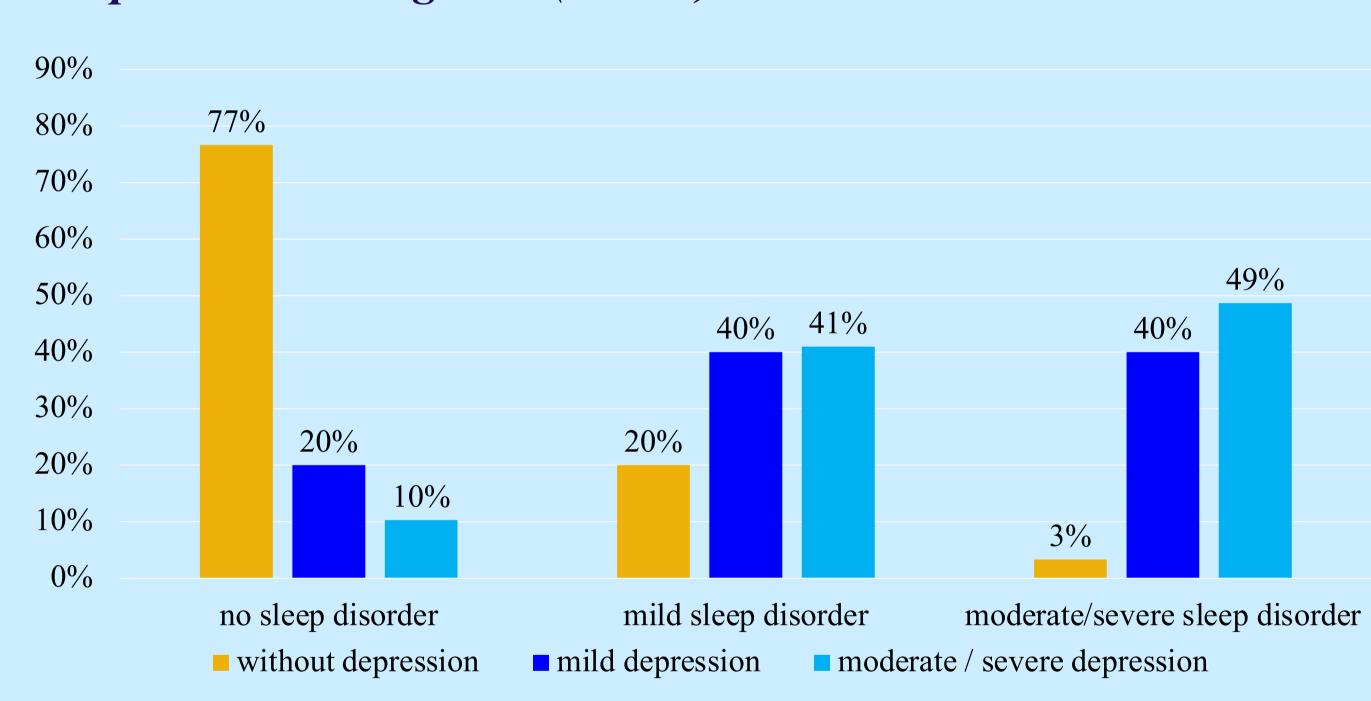


Figure 4.

The distribution of the sleep desorder based on depression categories categories (n=150)

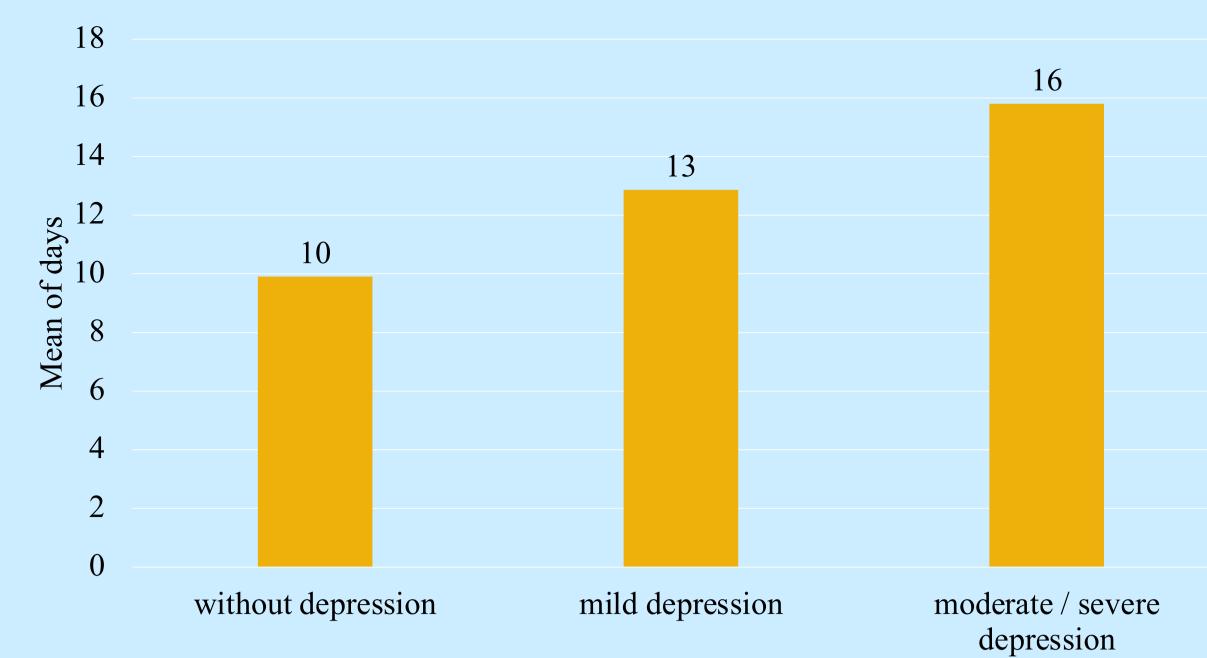


Figure 2.

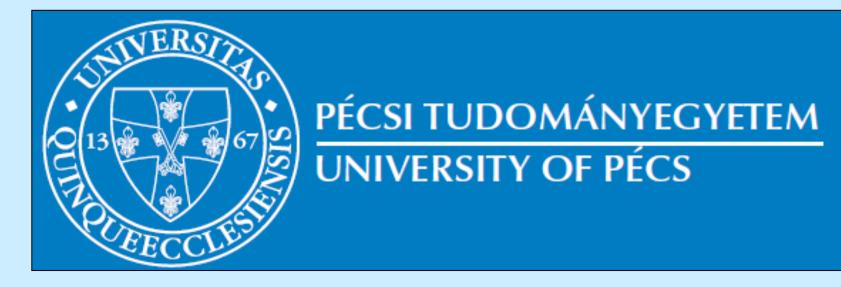
Distribution of the mean number of nursing days according to depression categories

Fatigue 115 76.7 Fatigue dou to physical 87 58 activity 58 58 Sleep disorder 76 50.7 Weakness 69 46 Limb/joint pain 50 33.3 Night sweats 47 31.3 Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 20 20 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss </th <th>Symptoms</th> <th>n</th> <th>%</th>	Symptoms	n	%
activity Sleep disorder 76 Weakness 69 46 Limb/joint pain 50 33.3 Night sweats 47 31.3 Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 Forgetfulness 38 Feeling of chest 33 Feeling of chest 33 Giscomfort Dry cough 31 Palpations on exertion 30 Back pain 30 Smell disorder 26 17.3 Disturbace of taste 21 Increased need for sleep 21 Headache 15 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 Scratch/pharyngeal irritation	Fatigue	115	76.7
Sleep disorder 76 50.7 Weakness 69 46 Limb/joint pain 50 33.3 Night sweats 47 31.3 Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Fatigue dou to physical	87	58
Weakness 69 46 Limb/joint pain 50 33.3 Night sweats 47 31.3 Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	activity		
Limb/joint pain 50 33.3 Night sweats 47 31.3 Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 0 20 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Sleep disorder	76	50.7
Night sweats 47 31.3 Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 31 20.7 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Weakness	69	46
Hair loss 47 31.3 Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 31 20.7 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Limb/joint pain	50	33.3
Anxiety 46 30.7 Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Night sweats	47	31.3
Digestive complaints 38 25.3 Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 20 20 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Hair loss	47	31.3
Forgetfulness 38 25.3 Feeling of chest 33 22 discomfort 20 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Anxiety	46	30.7
Feeling of chest 33 22 discomfort 20 Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Digestive complaints	38	25.3
discomfort Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Forgetfulness	38	25.3
Dry cough 31 20.7 Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Feeling of chest	33	22
Palpations on exertion 30 20 Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	discomfort		
Back pain 30 20 Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Dry cough	31	20.7
Smell disorder 26 17.3 Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Palpations on exertion	30	20
Disturbace of taste 21 14.0 Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Back pain	30	20
Increased need for sleep 21 14.0 Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Smell disorder	26	17.3
Heart palpations at rest 15 10.0 Headache 15 10.0 Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Disturbace of taste	21	14.0
Headache Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Increased need for sleep	21	14.0
Dizziness 14 9.3 Loose stool 11 7.3 Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Heart palpations at rest	15	10.0
Loose stool117.3Weight loss96.0Tinnitus106.7Throat53.3scratch/pharyngealirritation	Headache	15	10.0
Weight loss 9 6.0 Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Dizziness	14	9.3
Tinnitus 10 6.7 Throat 5 3.3 scratch/pharyngeal irritation	Loose stool	11	7.3
Throat 5 3.3 scratch/pharyngeal irritation	C	9	6.0
scratch/pharyngeal irritation	Tinnitus	10	6.7
irritation	Throat	5	3.3
	scratch/pharyngeal		
Dyspnoe 2 1.3	irritation		
	Dyspnoe	2	1.3

Table 1.

Distribution of the post-covid symptoms





Funding:

The research was financed by the Thematic Excellence Program 2021 Health Sub-programme of the Ministry for Innovation and Technology in Hungary, within the framework of the EGA-10 project of the University of Pécs.

Corresponding author:

Dr. Imre BONCZ, MD, MSc, PhD, Habil
University of Pécs, Faculty of Health Sciences, Hungary
Institute for Health Insurance
E-mail: imre.boncz@etk.pte.hu

