

COVID-19 and psychiatric inpatients: Sociodemographic and clinical outcomes in a COVID specific psychiatric service

COVID-19 ve psikiyatri hastaları: COVID spesifik psikiyatri servisinde sosyodemografik ve klinik bulgular

Abstract

Aim: This study aims to evaluate the sociodemographic and clinical characteristics of psychiatric inpatients diagnosed with COVID-19 during the pandemic, and to assess the interaction between psychiatric disorders and infectious diseases in a COVID-specific psychiatric service.

Methods: A total of 24 psychiatric inpatients diagnosed with COVID-19 and fulfilling DSM-5 diagnostic criteria were retrospectively analyzed between September 2020 and January 2021. Sociodemographic variables (age, gender, marital status, education level, smoking, alcohol/substance use, and employment status) and clinical outcomes (length of hospital stay, psychiatric diagnoses, and discharge methods) were recorded.

Results: Among the patients, 71% were female and 38% were smokers. Bipolar and related disorders (42%) were the most common psychiatric diagnoses, followed by depressive disorders (29%) and schizophrenia (21%). Married patients had a significantly shorter hospital stay than unmarried patients (8.75 ± 2.91 vs. 13.09 ± 5.57 days, $p=0.04$). Smokers required a significantly longer hospital stay than non-smokers (14.37 ± 6.04 vs. 9.76 ± 4.32 days, $p=0.026$). A total of 66.6% of patients were discharged after completing treatment for both COVID-19 and psychiatric conditions, while 16.6% were referred to COVID-negative psychiatric wards for further psychiatric care.

Conclusion: The findings highlight the complex challenges posed by the co-occurrence of psychiatric disorders and COVID-19. Sociodemographic factors such as smoking and marital status significantly influenced the outcome of hospitalization. Female patients and patients with bipolar disorder are more likely to be hospitalized, suggesting that these groups are the most vulnerable during pandemic. This study highlights the importance of specialized COVID-19 psychiatric services, tailored interventions, and the need for future research to optimize the care of psychiatric patients during pandemics.

Keywords: COVID-19; demographic factors; inpatients; pandemic; psychiatric disorders

Öz

Amaç: Bu çalışma, pandemi sırasında COVID-19 tanısı almış psikiyatri yatan hastalarının sosyodemografik ve klinik özelliklerini değerlendirmeyi ve COVID-19'a özgü bir psikiyatri servisinde psikiyatrik bozukluklar ile enfeksiyon hastalıkları arasındaki etkileşimi incelemeyi amaçlamaktadır.

Yöntemler: COVID-19 tanısı konulan ve DSM-5 tanı kriterlerini karşılayan toplam 24 psikiyatri yatan hastası, Eylül 2020 ile Ocak 2021 arasında retrospektif olarak analiz edilmiştir. Sosyodemografik değişkenler (yaş, cinsiyet, medeni durum, eğitim seviyesi, sigara kullanımı, alkol/madde kullanımı ve istihdam durumu) ve klinik sonuçlar (hastanede yatış süresi, psikiyatrik tanımlar ve taburculuk yöntemleri) kaydedilmiştir.

Bulgular: Hastaların %71'i kadın, %38'i sigara kullanıcısıydı. En yaygın psikiyatrik tanı bipolar ve ilişkili bozukluklar (%42) olup, bunu depresif bozukluklar (%29) ve şizofreni (%21) izledi. Evli hastaların hastanede yatış süresi, evli olmayanlara göre anlamlı derecede daha kısaydı (8.75 ± 2.91 gün vs. 13.09 ± 5.57 gün, $p=0.04$). Sigara içen hastaların hastanede yatış süresi, sigara içmeyenlere göre anlamlı derecede daha uzundu (14.37 ± 6.04 gün vs. 9.76 ± 4.32 gün, $p=0.026$). Hastaların %66.6'sı hem COVID-19 hem de psikiyatrik durum için tedavilerini tamamladıktan sonra taburcu edilirken, %16.6'sı daha ileri psikiyatrik bakım için COVID negatif psikiyatri serviserine sevk edilmiştir.

Sonuç: Bulgular, psikiyatrik bozukluklar ile COVID-19'un eş zamanlı görülmesinin oluşturduğu karmaşık zorlukları vurgulamaktadır. Sigara kullanımı ve medeni durum gibi sosyodemografik faktörler, hastanede yatış sonuçlarını anlamlı şekilde etkilemiştir. Kadın hastaların ve bipolar bozukluğu olan hastaların hastaneye yatırılma sıklığının daha yüksek olması, bu grupların pandemi sırasında en savunmasız gruplar olduğunu düşündürmektedir. Çalışma, pandemiler sırasında psikiyatri hastalarının bakımını optimize etmek için özel COVID-19 psikiyatri serviserinin ve bireyselleştirilmiş müdahalelerin önemini ortaya koymaktadır.

Anahtar Sözcükler: COVID-19; pandemi; psikiyatrik bozukluklar; sosyodemografik faktörler; yatan hastalar

Talha Agac¹, Hasan Gokcay², Mustafa Solmaz³

¹ Department of Psychiatry, Kanuni Sultan Süleyman Training and Research Hospital, University of Health Sciences

² Division of Psychiatry, Şarkışla State Hospital

³ Department of Psychiatry, Bağcılar Training and Research Hospital, University of Health Sciences

Received/Geliş : 20.01.2025

Accepted/Kabul: 12.05.2025

DOI: 10.21673/anadoluklin.1623457

Corresponding author/Yazışma yazarı

Talha Ağaç

Sağlık Bilimleri Üniversitesi, Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi, Psikiyatri Anabilim Dalı, İstanbul, Türkiye. E-mail: talha.agac@sbu.edu.tr

ORCID

Talha Ağaç: 0000-0002-5096-6116

Hasan Gökçay: 0000-0002-5720-1888

Mustafa Solmaz: 0000-0003-3322-9189

INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus, which emerged in Wuhan, China, in December 2019 and spread worldwide (1). In March 2020, the World Health Organization formally designated the outbreak of COVID-19 as a global pandemic (2). The Ministry of Health of the Republic of Türkiye has been disseminating data on the number of patients infected with COVID-19 in Türkiye on a daily and monthly basis (3). During the initial month of the pandemic, approximately 50,000 cases and over 1,000 deaths were reported in Türkiye (3). By March 2023, the total number of COVID-19 cases in Türkiye was reported as 172,320,660, with 102,174 deaths (3). The city with the highest number of cases in Türkiye was Istanbul (3). These figures illustrate the significant public health burden of the pandemic. The sudden and unexpected occurrence of the pandemic, coupled with the lack of a clear solution, prompted countries to implement changes to their health systems to address the situation (1). This included the establishment of outbreak hospitals and clinics to combat the pandemic (4). One consequence of these changes has been the establishment of dedicated inpatient units for psychiatric patients infected with COVID-19 (1,4).

In contrast, in psychiatric wards where the virus has not been detected, contagiousness has been reported to be as high as 78% despite the implementation of various measures to prevent the spread of the virus (5). During the period of hospitalization of psychiatric patients, it is necessary to implement specific conditions in terms of both psychiatric and COVID-19 treatment due to the presence of conditions such as impaired judgment, refusal of treatment, non-cooperation, non-compliance with social distancing, aggression, psychosis, and worsening of psychiatric symptoms (6). In Türkiye, Bağcılar Training and Research Hospital was among the centers that transformed its psychiatric clinics into COVID-19-specific inpatient units, providing single-patient rooms and respiratory isolation to manage this dual burden. The treatment process was conducted in the clinic with a single individual in each room; respiratory isolation conditions were applied, patients were isolated in their rooms, and appropriate health equipment was employed to intervene in cases of COVID-19.

The SARS-CoV-2 virus has been found to affect multiple organs in the body, including the heart and lungs, as well as the central nervous system. SARS-CoV-2 exhibits neurotropism similar to other coronaviruses. It has been reported that SARS-CoV-2 is associated with neuroinflammatory changes, increased proinflammatory molecules in the brain, and neuropsychiatric findings, in addition to systemic inflammation (7,8). These organic changes, pandemic fears, and social restrictions, together with environmental stressors caused by ICU experiences, stimulate neuropsychiatric pathologies, including major depressive disorder, bipolar disorder, and various psychoses (7). Previous studies have highlighted the increased risk of neuropsychiatric symptoms among COVID-19 patients, including the exacerbation of bipolar disorder and psychoses (7). However, research on the specific sociodemographic and clinical predictors in psychiatric inpatients remains limited.

Given the direct effects of COVID-19 on social life and its neuropsychiatric consequences, this study examines how sociodemographic and clinical factors (e.g., smoking, marital status, and psychiatric diagnoses) influence hospitalization outcomes in psychiatric inpatients with COVID-19. By analyzing these interactions, the study aims to enhance the understanding of psychiatric care during pandemics and contribute to future healthcare policies. This study provides unique insights into the management and outcomes of psychiatric inpatients in a COVID-specific psychiatric clinic, a subject that remains underexplored in current literature.

MATERIALS AND METHODS

Participants

This study aims to analyse the sociodemographic and clinical characteristics of psychiatric inpatients diagnosed with COVID-19. This study included psychiatric inpatients who met the following criteria: diagnosed with COVID-19 through a positive RT-PCR test, fulfilled DSM-5 diagnostic criteria for any psychiatric disorder, aged over 18 years, underwent treatment in a COVID-19-specific psychiatric unit at Bağcılar Training and Research Hospital between September 2020 and January 2021. Patients admitted to the ward without a psychiatric diagnosis were excluded from the study.

The strict inclusion criteria ensured the study population consisted solely of patients facing both psychiatric disorders and COVID-19, providing insights into this unique subgroup. Including only patients who completed both psychiatric and COVID-19 treatment allows for a more accurate evaluation of hospitalization outcomes and factors influencing recovery.

Procedure

The following data were collected retrospectively from the patient files: age, gender, marital status, educational level, smoking habits, alcohol consumption, substance abuse, employment status, number of days of hospitalization, psychiatric diagnosis, and discharge status.

Ethical approval was obtained from the Hamidiye Scientific Research Ethics Committee, University of Health Sciences (date: 18.04.2024, decision no: 5/13).

Statistical analysis

The statistical analyses were conducted using the IBM Statistical Package for the Social Sciences (SPSS) for Mac OS, Version 23.0 software (Armonk, NY: IBM Corp.). The descriptive statistics of the data included the mean, standard deviation, median, standard error of the mean, rank mean, minimum and maximum values, percentage ratio and frequency values. Following the examination of the descriptive data, the compatibility of the numerical variables with a normal distribution was assessed using the Kolmogorov-Smirnov test. For variables exhibiting a normal distribution, the Student's t-test was employed. Power analysis was unnecessary as no sample was taken from the patient group and all patient records were obtained.

RESULTS

A total of 24 inpatients with psychiatric disorders according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) who were positive for COVID-19 in the reverse transcription polymerase chain reaction (RT-PCR) test. Two patients who did not meet the criteria for a psychiatric disorder according to the DSM-V and who were hospitalised in our service were excluded from the study. Of the inpatients, 29% were male (n=7), 71% were female (n=17), 48% (n=10) were single, 38% (n=8) were married, and 14% (n=3) were

widowed or divorced. The majority of respondents (33%) had completed primary school, while 20% had completed middle school, 27% had completed high school, and 20% had completed university. A total of 38% (n=8) of the participants were smokers, 22% (n=4) were alcohol users, and 30% (n=6) were substance users. Twenty-two percent (n=4) were engaged in remunerative employment. According to the DSM-V, 42% (n=10) were diagnosed with bipolar and related disorders, 29% (n=7) with depression disorders, 21% (n=5) with schizophrenia, 4% (n=1) with generalized anxiety disorder, and 4% (n=1) with delirium. A total of 66.6% (n=16) of patients were discharged following the completion of both their treatment for COVID-19 and their psychiatric disease. A total of 16.6% (n=4) of patients completed treatment for COVID-19 and were subsequently referred to a COVID-negative psychiatric service for further psychiatric treatment. In contrast, 8.3% (n=2) of patients were referred to the intensive care unit due to an exacerbation of their COVID-19 symptoms. Four point two percent (n=1) of patients were discharged from the clinic for home quarantine following a refusal of treatment, while four point two percent (n=1) of patients died. Sociodemographic and clinical disorder data are presented in tables (Table 1).

The mean age of the study population was 43 ± 16 years, and the overall mean \pm SD duration of hospitalisation was 11.2 ± 5.4 days. When evaluated in terms of marital status, married patients had a significantly shorter hospital stay (8.7 ± 2.9 days) compared to unmarried patients (13.1 ± 5.6 days), with a statistically significant difference ($p = 0.04$, $t = -2.13$, Cohen's $d \approx -0.94$). Similarly, the mean number of hospitalisation days was higher among smokers (14.4 ± 6.0 days) than non-smokers (9.8 ± 4.3 days), and this difference was also statistically significant ($p = 0.026$, $t = 1.88$, Cohen's $d \approx 0.92$). These comparisons indicate that both marital and smoking status are significantly associated with the length of hospital stay, as detailed in (Table 2).

DISCUSSION AND CONCLUSION

During the COVID-19 pandemic, the most significant disruptions were reported to be a reduction in access to psychiatric outpatient services, a reduction in inpatient admissions and an earlier discharge from inpa-

Table 1. Sociodemographic and clinical disorder data

| Variables | n (%) |
|--|---------------|
| Sex | |
| Male | 7 (%29) |
| Female | 17 (%71) |
| Marital status | |
| Married | 8 (%38) |
| Unmarried | 10 (%47,6) |
| Widowed/divorced | 3 (%14,3) |
| Education level | |
| Primary school | 5 (%33) |
| Middle school | 3 (%20) |
| High school | 4 (%27) |
| University | 3 (%20) |
| Smoker | |
| Yes | 8 (%38) |
| No | 13 (%62) |
| Alcohol Use | |
| Yes | 4 (%22) |
| No | 14 (%78) |
| Illicit drug | |
| Yes | 6 (%30) |
| No | 14 (%70) |
| Employment | |
| Yes | 4 (%22) |
| No | 14 (%78) |
| Diagnosis | |
| Bipolar and related disorders | 10 (%41.7) |
| Depression disorders | 7 (%29.1) |
| Schizophrenia | 5 (%20.8) |
| Generalized anxiety disorder | 1 (%4.2) |
| Delirium | 1 (%4.2) |
| Discharge method | |
| Discharge | 16 (%66.6) |
| Referral to Covid negative psychiatry ward | 4 (%16.6) |
| Referral to covid intensive care | 2 (%8.3) |
| Treatment rejected | 1 (%4.2) |
| Death | 1 (%4.2) |
| Age (Mean±SD) | 43 ± 16 years |

n: Number, SD: Standard deviation

Table 2. Comparison of variables for themselves

| | Yes | No | | | |
|--------------------------------|------------|------------|---------|--------------|-----------|
| Number of hospitalisation days | Mean±SD | Mean±SD | p-value | t-test score | Cohen's d |
| Marriage | 8.75±2.91 | 13.09±5.57 | 0.04* | -2.13 | 0.94 |
| Smoker | 14.37±6.04 | 9.76±4.32 | 0.026* | 1.88 | 0.92 |

SD: Standard deviation, *Student t-test was used.

tient clinics (9). Previous studies have indicated that there is a high transmission and mortality rate in inpatient psychiatric wards (1,10). It has been suggested that the frequency of COVID-19 may be reduced when patients exhibit signs or symptoms related to the virus before being admitted to psychiatric wards or when COVID-19 tests are performed for all hospitalisations. Furthermore, the monitoring of vital signs, such as body temperature, saturation, respiratory rate, pulse rate, and the observation of symptoms, such as fever, cough, dyspnoea, and anosmia, may assist in the early diagnosis of COVID-19 patients while they are hospitalised in negative psychiatric wards. It has been documented that individuals whose initial tests were negative during their hospitalisation may subsequently test positive, either due to the acquisition of the virus from health services or due to false negative results (10). For this reason, it would be prudent to isolate symptomatic patients, even if the RT-PCR test is negative.

In our service, 24 patients met the inclusion criteria during the COVID-specific psychiatry. In the studies conducted in the USA, 48 patients, 84 patients, 12 patients, in a study conducted in Germany, 28 patients, in a study conducted in Germany, 25 patients, in a study conducted in China, 25 patients, in a study conducted in Italy, 15 patients, in another study conducted in Türkiye, 21 patients were hospitalized during different periods (5, 11, 12, 13, 14, 15, 16). The reason for this difference in the studies is likely the bed capacity of the hospitals and the duration of the studies.

Of the inpatients, 29% were male (n=7), 71% were female (n=17). While the gender distribution of patients was 50-50% (n=6/6) in a study in the USA, 75% (n=21) of these patients were female and 25% (n=7) were male in a study in Germany, 52% (n=13) were male and 48% (n=12) were female in a study in China, 73% (n=11) were female and 27% (n=4) were male in Italy, and 86% (n=18) were male and 14% (n=3) were female in another study in Türkiye (5, 13, 14, 15, 16). The number of female patients hospitalised in our service is higher than that of male patients. The reason for the difference in the proportional difference between genders from the literature may be that our hospital is a general hospital. Thus, as in the general psychiatry population, we observed that mental health problems are observed more frequently in women (4,5,7).

The mean age of the study population was 43 years. In studies in the literature, the mean age of patients was 42.5 years in Italy, 33.9 years in the USA, 67.5 years in Germany, 53.1 years in China, and 38 years in Türkiye (5, 13, 14, 15, 16). The reason for the higher age observed was thought to be that the disease was more severe in the elderly, and the patients included in the study consisted of those requiring intensive care or geriatric.

In our study, 66.6% (n=16) of patients were discharged after completing both COVID and psychiatric treatment. 16.6% (n=4) were transferred to covid-negative psychiatric service after completing covid treatment, 8.3% (n=2) were transferred to the intensive care unit, 4.25% (n=1) patients left with treatment refusal and 4.25% (n=1) patients died. A study in the USA reported that eight patients (17%) were transferred to the emergency department after worsening their COVID-19 findings, while 40 patients (83%) were discharged (11). In a US study of 84 patients, 13 were transferred to the emergency department after worsening COVID-19 findings. Nine of them received advanced treatment, three were subsequently readmitted for psychiatric treatment, five were discharged, and one died (12). In a study of 12 patients in the USA, there were no medical emergencies (13). A study conducted in China reported that 84% (n=21) of patients were discharged with improvement in both psychiatric and COVID-19 treatment, and 16% (n=4) were referred for continuation of COVID-19 treatment after psychiatric treatment (15). A study in Italy reported that 13% (n=2) of patients were transferred to intensive care (5). In another study conducted in another center in Türkiye, 90% (n=19) of patients were discharged after completing treatment for both COVID-19 and psychiatric illness. Ten percent (n=2) of patients were referred to a psychiatry service that was negative for SARS-CoV-2 for psychiatric treatment following the completion of their treatment for COVID-19. A comparison of the patients who were admitted to the intensive care unit and subsequently died in our service with the existing literature reveals a parallel outcome. The absence of a medical emergency may be attributed to the fact that younger patients were hospitalised.

According to the DSM-V, 42% (n=10) were diagnosed with bipolar and related disorders, 29% (n=7) with depression disorders, 21% (n=5) with schizo-

phrenia, 4% (n=1) with generalized anxiety disorder, and 4% (n=1) with delirium. In a study conducted in Germany, the diagnostic distribution of the patients was reported as Alzheimer's dementia (n = 11), affective disorders (n = 10), schizophrenia (n = 4), substance use disorder (n = 2) and adjustment disorders (n = 1) (14). The discrepancy in diagnostic categorisation was attributed to the fact that our hospital was a general hospital, whereas the study was conducted in a facility that offered geriatric psychiatry and addiction psychiatry services. In a study conducted in China, it was indicated that 44% (n=11) of the subjects had been diagnosed with psychotic disorders, including two cases of delirium, six cases of acute and transient psychotic disorders with associated acute stress, one case of schizophrenia, one case of organic hallucinosis, and one case of chloroquine-induced psychosis. Furthermore, 56% (n=14) of the subjects had been diagnosed with anxiety disorders, including 11 cases of adjustment disorder, two cases of acute stress reaction, and one case of panic disorder. Furthermore, no cases of mood disorder or alcohol use disorder were identified (15). The reason for this may be that the course of the COVID-19 was not yet known at the time of the study, and the anxiety caused by uncertainty. Conversely, the inclusion of only first-episode patients and psychiatric intensive care patients was postulated to be the reason for the discrepancy in diagnostic outcomes. In a study conducted in Italy the diagnostic distribution of inpatients was reported as follows: six cases of psychosis, five cases of bipolar disorder, two cases of personality disorder, one case of cognitive disorder, and one case of mental retardation. The prevalence of bipolar and related disorders in our study may be attributed to the coincidence of the study period with the seasonal transition and non-compliance with mask-wearing and hand hygiene, which are methods of protection from COVID-19. This is likely due to the loss of insight experienced during the attack. It is postulated that individuals with serious mental illness are at a heightened risk of morbidity and mortality due to complications associated with COVID-19 infection (1,5). The study conducted in Türkiye reported that 17 patients (81%) were diagnosed with psychotic spectrum disorders, while 4 patients (19%) were diagnosed with bipolar disorder (16). The discrepancy in diagnostic categorisation was attributed to the fact that the hospital

where the study was conducted was a specialised psychiatric facility, where patients with psychotic disorders were more likely to present.

In our study, 48% (n=10) were single, 38% (n=8) were married, and 14% (n=3) were widowed or divorced. The study conducted in China, 76% (n=19) of the patients were married, 12% (n=3) were widowed or divorced, and 12% (n=3) were single (15). The study conducted in Türkiye, 71.4% (n=15) were found to be single, 14.3% (n=3) were married, and 14.3% (n=3) were widowed or divorced (16). It is noteworthy that the majority of patients were single. This was deemed to be attributable to the preponderance of patients diagnosed with psychotic disorders and the challenges encountered by those with psychotic disorders in sustaining marital relationships (16).

The majority of respondents (33%) had completed primary school, while 20% had completed middle school, 27% had completed high school, and 20% had completed university. The study conducted in China, it was reported that 52% (n=13) of the participants had obtained a university degree, 16% (n=4) had completed primary school, and 32% (n=8) had completed high school (15). It is well-documented that low educational attainment is associated with adverse mental health outcomes (4). No significant differences were observed in the educational levels of our inpatients, which we believe is related to the relatively small sample size.

In our study, 22% (n=4) were engaged in remunerative employment. The study conducted in China, the majority of respondents (44%) were employed, while 44% had a high economic level (15). The study conducted in Türkiye 47.6% (n=10) of patients were reported to be employed (16). The discrepancy in the findings of our study may be attributed to the fact that men are more likely to be employed at a higher rate than women in Turkish society. Furthermore, the majority of patients in this study were male. Working in a job in this population during the pandemic period appears to be both a significant need and a potentially conflictual situation, given the risk of transmission. It is well established that socioeconomic difficulties and economic instability have a detrimental impact on mental health (4). By the existing literature, the number of unemployed patients was found to be higher in our study.

In our study, the mean number of days spent in hospital was 11.2 ± 5.4 . The study conducted in China, the mean number of hospitalisation days was reported to be 21.2 ± 13.4 (15). The study conducted in Türkiye, the mean number of hospitalisation days was reported as 28.5 ± 17.6 days (16). The longer duration of hospitalization may be attributed to the fact that psychotic disorders require a prolonged period to stabilize or to the inclusion of intensive care patients. The length of hospitalisation was found to be statistically significantly shorter for patients who were married ($p=0.04$) (8.75 ± 2.91 ; 13.09 ± 5.57). It has been demonstrated that psychosocial support and marriage can act as a means of alleviating psychiatric symptoms (4). Individuals with psychiatric disorders are at an elevated risk of contracting the novel coronavirus (14). Furthermore, individuals with comorbid psychiatric disorders who contract COVID-19 tend to require longer periods of hospitalisation (15). The duration of acute illness may be prolonged in some individuals due to the longer periods that psychiatric disorders may go untreated (17).

In our study, a total of 38% ($n=8$) of the participants were smokers, 22% ($n=4$) were alcohol users, and 30% ($n=6$) were substance users. In a study conducted in Türkiye, it was reported that 9.5% ($n=2$) of the participants were alcohol users and 33.3% ($n=7$) were substance users (16). While no difference was found in terms of substance use in our study, a significant difference was observed in alcohol use. The most significant modifiable risk factor in patients infected with the COVID-19 and associated with a poor prognosis is smoking cigarettes (18). Patients who smoked cigarettes were hospitalised for a statistically significant longer period ($p=0.026$) (14.37 ± 6.04 ; 9.76 ± 4.32). It has been demonstrated that substance use disorder is correlated with an increased risk of both COVID-19 and psychiatric illness (1,4).

A growing body of evidence indicates that individuals diagnosed with COVID-19 exhibit an increased prevalence of depressive symptoms, panic attacks, suicidal ideation, and anxiety. This phenomenon has been observed in both those with and without a prior history of psychiatric illness. Nevertheless, the reason why only one patient with an anxiety disorder was admitted to our service may be that anxiety symptoms affect young people (under 40 years of age) more than the elderly.

Furthermore, in hospitalisations due to COVID-19, elderly patients may be preferred in line with the more severe course in the elderly. Furthermore, the restrictions on outpatient applications due to social isolation and quarantine measures may prevent patients with anxiety complaints from making such applications. It is important to note that individuals experiencing anxiety and depression may be reluctant to seek hospital care due to concerns about contracting COVID-19. Telepsychiatry, a telehealth service that employs remote communication technology to deliver psychiatric care, can be a valuable solution to this problem.

Limitations

Several limitations to the study must be acknowledged. Firstly, the sample size was relatively small, which may limit the generalizability of the findings to other psychiatric populations or settings. Larger, multi-center studies are needed to validate these results. Secondly, the study covered only four months of specific psychiatry services during the first year of the pandemic. While this period reflects the immediate challenges faced during the pandemic's onset, it may not capture long-term trends or seasonal variations. Thirdly, the results were not compared with data from previous or subsequent years, which limits the ability to contextualize the findings within broader temporal trends. Future studies should incorporate longitudinal data to address this limitation. Finally, the retrospective design and single-center data collection may introduce bias. Multi-center prospective studies would provide a more comprehensive understanding of the issues examined.

One strength of the study lies in its use of a general hospital setting, where patients were admitted regardless of their comorbidities, offering a real-world perspective on the management of psychiatric patients during the COVID-19 pandemic.

This study provides insights into the complex interactions between psychiatric conditions and COVID-19 in a specialized psychiatric clinic. The findings underscore the dual burden faced by individuals with severe mental illness during the pandemic and emphasize the need for tailored services to address both psychiatric and infectious disease challenges. Sociodemographic factors, such as smoking and marital status, significantly influenced hospitalization outcomes. For instance,

smoking was associated with longer hospital stays, potentially due to its adverse effects on respiratory health. These results suggest that addressing such disparities could improve patient care and outcomes in similar settings. The implementation of COVID-19-specific psychiatric services effectively met the unique needs of this patient population, reducing transmission risk and ensuring comprehensive care. However, the retrospective design and limited sample size constrain the generalizability of the findings. Multi-center prospective studies are required to confirm these results and provide a deeper understanding of the long-term outcomes of such integrated care models. Future research should explore the role of telepsychiatry and other innovative approaches in improving access to care, particularly during pandemics. The findings also highlight the importance of interdisciplinary collaboration and proactive health policies to mitigate the impact of future pandemics on vulnerable populations.

Aknowledgemet

This study was presented as an online oral presentation at the International Update Symposium of the Association of Psychopharmacology on 10-11 April 2021.

Conflict of interest and financial disclosure

The authors declare that they have no conflict of interest to disclose. The authors also declare that they did not receive any financial support for the study.

REFERENCES

- Bojdani E, Rajagopalan A, Chen A, et al. COVID-19 Pandemic: impact on psychiatric care in the United States. *Psychiatry Res.* 2020;289:113069.
- Diñç V, Özakın O, Karakullukçuoğlu Z, Başar B, Badur İ. Evaluation of anxiety in health care professionals with or without COVID-19. *Anatolian Clin.* 2024;29(1):54-61.
- Republic of Türkiye Ministry of Health. COVID-19 [Internet]. Available from: <https://covid19.saglik.gov.tr>. Accessed January 17, 2025.
- Hossain MM, Tasnim S, Sultana A, et al. Epidemiology of mental health problems in COVID-19: a review. *F1000Res.* 2020;9:636.
- Thompson JW Jr, Mikolajewski AJ, Kissinger P, et al. An epidemiologic study of COVID-19 patients in a state psychiatric hospital: high penetrance with early CDC guidelines. *Psychiatr Serv.* 2020;71(12):1285-7.
- Mahgoub N, Agarkar S, Radosta M, et al. Inpatient psychiatry unit devoted to COVID-19 patients. *Compr Psychiatry.* 2021;107:152237.
- Özdin S, Bayrak Özdin Ş. 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(5):504-11.
- Tasnim S, Hossain MM, Mazumder H. Impact of rumors and misinformation on COVID-19 in social media. *J Prev Med Public Health.* 2020;53(3):171-4.
- Witteveen AB, Young S, Cuijpers P, et al. Remote mental health care interventions during the COVID-19 pandemic: an umbrella review. *Behav Res Ther.* 2022;159:104226.
- Mahgoub N, Agarkar S, Radosta M, et al. Inpatient psychiatry unit devoted to COVID-19 patients. *Compr Psychiatry.* 2021;107:152237.
- Russ MJ, Parish SJ, Mendelowitz R, et al. The interface of COVID-19 and inpatient psychiatry: our experience and lessons learned. *J Psychiatr Pract.* 2021;27(3):172-83.
- Li L, Roberts SC, Kulp W, et al. Epidemiology, infection prevention, testing data, and clinical outcomes of COVID-19 on five inpatient psychiatric units in a large academic medical center. *Psychiatry Res.* 2021;298:113776.
- Li L, Stanley R, Fortunati F. Emerging need and early experiences with a COVID-specific psychiatric unit. *Psychiatr Serv.* 2020;71(8):873.
- Zielasek J, Vrinssen J, Gouzoulis-Mayfrank E. Utilization of inpatient mental health care in the Rhineland during the COVID-19 pandemic. *Front Public Health.* 2021;9:593307.
- Xie Q, Fan F, Fan XP, et al. COVID-19 patients managed in psychiatric inpatient settings due to first-episode mental disorders in Wuhan, China: clinical characteristics, treatments, outcomes, and our experiences. *Transl Psychiatry.* 2020;10(1):337.
- Yalçın M, Sönmez Güngör E, Ergelen M, et al. Characteristics and outcomes of psychiatric inpatients with severe mental illness and COVID-19: experience from a COVID-19-specific acute psychiatric ward in Istanbul. *J Nerv Ment Dis.* 2021;209(12):884-91.
- Li L. Challenges and priorities in responding to COVID-19 in inpatient psychiatry. *Psychiatr Serv.* 2020;71(6):624-6.
- Cattaruzza MS, Gorini G, Bosetti C, et al. Covid-19 and the role of smoking: the protocol of the multicentric prospective study COSMO-IT (COvid19 and SMOKing in Italy). *Acta Biomed.* 2020;91(3):e2020062.