

An Evaluation of Psychiatric Presentations in the Emergency Department Before and During the Coronavirus Disease 2019 Pandemic: Case of Türkiye

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Cite this article as: Büyükbayram Arslan A, Bilgin S. An evaluation of psychiatric presentations in the emergency department before and during the coronavirus disease 2019 pandemic: Case of Türkiye. *Arch Health Sci Res.* 2023;10(2):94-100.

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ABSTRACT

Objective: The study was carried out for the purpose to assess the effect of the coronavirus disease 2019 pandemic on emergency psychiatric presentations.

Methods: This retrospective, cross-sectional, and descriptive study was conducted in the emergency department of a university hospital in the west of Türkiye. Patients presenting solely due to psychiatric problems on periods December 10, 2019-March 10, 2020 (pre-pandemic) and March 11, 2020-June 11, 2020 (pandemic) were included in the study. The research data determined in the descriptive information form were obtained from the hospital's data processing system based on International Classification of Diseases codes.

Results: In the study, 818 patients were included before the pandemic and 900 patients during the pandemic period. The participants' mean age was 41.09 years (SD=15.58), and 51.5% (n=884) were women. During the pandemic, presentations due to attempted suicide/suicidal ideation, hallucination and perception problems, depressive mood, and situational crises increased, while those due to aggression, alcohol/substance use, or physical symptoms decreased ($P < .05$). Also, patients' triage waiting times, emergency department follow-up times, and numbers of repeat presentations decreased, while the number of patients leaving the emergency department without permission, the number of patients brought in by the ambulance, and psychiatric consultation request rates increased ($P < .05$).

Conclusion: The coronavirus disease 2019 pandemic has affected emergency psychiatric presentations. The results are a guide for physicians and nurses in terms of increasing the quality of service in a possible pandemic process. In order to increase the quality of care given to emergency psychiatric patients, it is thought that emergency service personnel should be trained, consultation-liaison services (medicine and nursing), and telepsychiatry services should be developed.

Keywords: COVID-19, emergency service, mental disorders, patients

Introduction

The first case of coronavirus disease 2019 (COVID-19), declared a global pandemic by the World Health Organization on March 11, 2020, in Türkiye was also seen on that date. Case numbers and mortality rates then increased rapidly, and the pandemic continues to exert a global impact in physical, mental, and social terms.¹ Several factors, particularly the unexpected losses that occurred during the pandemic, the growing numbers of deaths, the risk of contagion, lockdowns imposed under isolation precautions, solitude, and inadequate social support precipitated mental problems.^{2,3} An extensive, nationwide study from China involving 52 739 participants reported that 35% of the general population experienced mental difficulties during the COVID-19 pandemic.⁴ Mood disorders, anxiety disorders, and suicide risks all increased,³⁻⁹ and 25% of all psychiatric presentations are reported to be directly linked to COVID-19.¹⁰ Changes have also occurred in the profiles of patients presenting due to psychological problems.^{3,11} The limited number of studies comparing emergency psychiatric presentations before and during the pandemic have reported differences in such variables as sex, reasons for presentation, medical diagnoses, lengths of hospital stay, and outcomes.¹¹⁻¹³ However, the number of studies examining the characteristics of emergency psychiatric presentations due to mental problems in Türkiye are limited. Understanding the effect of the pandemic on emergency psychiatric presentations will make it possible to plan services for these patients and also to enhance the quality of that service. The characteristics of emergency psychiatric patients thus identified will represent an important source of data for

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Received: November 22, 2022

Accepted: January 16, 2023

Publication Date: March 31, 2023

studies aimed at developing consultation liaison psychiatry (medicine, nursing) services, adapting to the new circumstances and improving emergency psychiatric care by identifying the changing needs of emergency departments during another potential pandemic. The purpose of this study was to examine the effect of the COVID-19 pandemic on emergency psychiatric presentations. For this purpose, emergency psychiatric presentations before the pandemic were compared with those during the pandemic. Within the scope of the study, answers were sought to the following questions in particular:

1. Are there any changes in the sociodemographic characteristics of the patients during the pandemic period compared to the pre-pandemic period?
2. Are there any changes in the clinical features of the patients during the pandemic period compared to the pre-pandemic period?

Material and Method

Study Design and Setting

This retrospective, cross-sectional, and descriptive study was conducted in the emergency department of a university training and research hospital in the west of Türkiye. The number of patients presenting to that emergency department were 270 114 in 2019 and 241 984 in 2020. Mean daily patient numbers were 740 in 2019 and 663 in 2020. Based on the International Statistical Classification of Diseases and Related Health Problems (ICD) data, 6752 psychiatric emergency cases presented to the emergency department in 2019 and 5492 in 2020. Fifty-eight doctors and 50 nurses are actively working in the emergency department. There was no change in the number of employees in the emergency department before and after the pandemic. In addition, there are no psychiatrists and psychiatric nurses who deal with emergency psychiatric patients. Psychiatric consultation service is offered. There is an emergency psychiatry room in the emergency department. Interview, treatment, and follow-up of the patients who apply are done here. An in-service training on the approach to emergency psychiatric patients was recently held for emergency clinic staff, but due to the intense working conditions, the participation of all staff in the training could not be ensured.

Patients receiving only ICD diagnostic codes for mental problems (F00-F99) over a 6-month period from December 10, 2019 to March 10, 2020 (*pre-pandemic*) and March 11, 2020 to June 11, 2020 (*during the pandemic*) were included in the study. Emergency psychiatric patients aged under 18 or with an acute medical condition were excluded. The number of patients presenting to the emergency department due to psychological distress over the total 6-month study period was 1802. Eighty-four patients were excluded from the study, 55 due to being under 18 years of age, and 29 due to acute medical conditions.

Data Collection

The research data were obtained from the hospital's data processing system. The ICD diagnostic codes concerning mental problems (F00-F99) identified in the system were examined by 3 separate individuals. In the light of the data obtained, medical diagnosis codes F10-F19 were classified as mental and behavioral disorders due to psychoactive substance use; F20-F29 as schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders; F30-F39 as mood disorders; F40-F48 as anxiety, dissociative, stress-related, somatoform, and other non-psychotic mental disorders; F50-F59 as behavioral syndromes associated with physiological disturbances and physical factors, and other codes. The data obtained from the system based on these codes were then set out on the descriptive information forms.

The data regarding patients' sociodemographic (age, gender) and clinical features (*type of presentation, reason for presentation, emergency*

department preliminary diagnosis, psychiatric consultation request status, psychiatric consultation medical diagnosis, triage waiting time, emergency department follow-up time, patient outcome, repeat presentation status, and number of repeat presentations) were obtained from the hospital's data processing system.

Ethical Approval

Approval for the study was granted by a university non-interventional research ethical committee (no.0016 dated 21.01.2021). Ethical committee permission and approval from the relevant institution managements were obtained. The study is a retrospective study and patient consent could not be obtained because the data were obtained from the hospital's data processing system.

Statistical Analyses

The data were analyzed on IBM Statistical Package for Social Sciences Statistics Standard Concurrent User version 26 software (IBM SPSS Corp., Armonk, NY, USA). Descriptive statistics were presented as number, percentage, mean $\pm$ SD, median, minimum, and maximum values. The normality of the distribution of numerical variable data was assessed using the Shapiro-Wilk normality test, and variance was evaluated using the Levene test. Since normal distribution assumptions were not met, single measurement numerical variables were compared using the Mann-Whitney *U*-test. Categorical variables were analyzed using Fisher's exact test and the Chi-square test. If the expected frequencies were lower than 20%, these frequencies were evaluated using the Monte Carlo simulation method. $P < .05$ and $P < .001$, as appropriate, were regarded as statistically significant.

Results

Data for a total of 1718 patients were eventually evaluated in the study, 818 pre-pandemic and 900 during the pandemic. The mean age of the patients in the study was 41.09 years ($SD = 15.58$) and 51.5% were women. Analysis showed that 96.3% presented on foot ($n = 1654$) and that general anxiety symptoms were the reasons for presentation in 65.9% ($n = 1133$). Additionally, 90.3% ($n = 1552$) of patients were evaluated with preliminary medical diagnoses of anxiety-related disorders (F40-F48). Psychiatric consultations were requested for 29% of patients ($n = 498$), with schizophrenia-related disorder (F20-F29), mood disorders (F30-F39), and general psychiatric examination, not elsewhere classified (Z004) diagnostic codes frequently being recorded. The mean triage waiting time was 4.09 min ($SD = 4.08$), and the mean emergency department follow-up time was 283.22 minutes ($SD = 979.60$). In addition, 90.6% ($n = 1557$) of patients were discharged, while 42.4% ($n = 729$) made repeat presentations to the hospital. The mean number of repeat presentations to the emergency department was 1.20 ($SD = 1.68$) (Table 1).

A comparison of the pre-pandemic and pandemic cases in terms of descriptive characteristics is shown in Table 2. Eight hundred eighteen patients presented pre-pandemic and 900 during it ($P > .05$). Mean ages were 40.67 years ($SD = 14.28$) in the patients presenting pre-pandemic and 41.45 ($SD = 16.67$) in those presenting during it. Women represented 51.7% ($n = 423$) of pre-pandemic presentations and men 48.35% ($n = 395$), while women constituted 51.2% ($n = 461$) of presentations during the pandemic and men 48.8% ($n = 439$). No significant difference in age or gender was observed between the 2 groups ($P > .05$).

In terms of the type of presentation to the emergency department, 98.3% ($n = 804$) of pre-pandemic patients presented on foot and 0.7% ($n = 6$) were brought in by ambulance and 1.0% ($n = 8$) by the police. During the pandemic, 94.4% ($n = 850$) presented on foot and 5.6% ($n = 50$) were brought by ambulance, the difference between the 2 being statistically significant ($P = .001$, $\chi^2 = 40.02$).

Table 1. Patients' Descriptive Characteristics (n = 1718)

Characteristic	$\bar{X} \pm SD$ (min-max)		Characteristic	$\bar{X} \pm SD$ (min-max)	
Age (years)	41.09 $\pm$ 15.58 (17-98)		Triage waiting time (minutes)	4.09 $\pm$ 4.08 (0.0-85.0)	
Number of repeat presentations to the emergency department	1.20 $\pm$ 1.68 (0.0-8.0)		Emergency department follow-up time (minutes)	283.22 $\pm$ 979.60 (4.9-15840.0)	
	n	%		n	%
Gender			Type of presentation		
Female	884	51.5	On foot	1654	96.3
Male	834	48.5	Ambulance	56	3.3
			Police	8	0.5
Reason for presentation			Outcome		
General anxiety symptoms	1133	65.9	Discharge	1557	90.6
Aggression, risk of causing harm	115	6.7	Referral to another hospital	32	1.9
Attempted suicide/suicidal ideation	96	5.6	Hospitalization	43	2.5
Perception problems such as hallucinations	107	6.2	Left the hospital without permission	86	5.0
Exaggerated strange behavior	4	0.2	Repeat presentation status		
Manic mood	2	0.1	Yes	729	42.4
Depressive mood	23	1.3	No	989	57.6
Alcohol/substance intoxication/deprivation	111	6.5	Psychiatric consultation requested		
Non-specific physical symptoms	40	2.3	Yes	498	29.0
Situational crises such as trauma or bereavement	77	4.5	No	1220	71.0
Other	10	0.6			
Emergency department preliminary medical diagnosis (ICD code)			Psychiatric consultation medical diagnosis (ICD code)		
F10-F19	5	0.3	F10-F19	20	1.2
F20-F29	45	2.6	F20-F29	106	6.2
F30-F39	67	3.9	F30-F39	146	8.5
F40-F48	1552	90.3	F40-F48	30	1.7
F50-F59	10	0.6	F50-F59	0	0.0
Other	39	2.3	Z004	168	9.8
			Other	26	0.5

ICD, International Classification of Diseases; Min, minimum; Max, maximum.

In terms of reasons for presentation to the emergency department, significant increases were observed in attempted suicide/suicidal ideation (6.8%, n=61), hallucination and perception problems (8.2%, n=74), depressive mood (2.1%, n=19), and situational crises (6.4%, n=58) during the pandemic compared to the pre-pandemic period, while significant decreases were observed in presentations due to aggression (3.1%, n=28), alcohol/substance use (5.0%, n=45), and physical symptoms (non-specific (0.0%, n=0) ($P=.001$, $\chi^2=139.13$).

Examination of emergency department preliminary diagnoses revealed an increase in the diagnosis of schizophrenia-related disorder (F20-F29) (3.6%, n=32) and a decrease in anxiety-related disorder (F40-F48) (88.4%, n=796) during the pandemic compared to before it, while increases were observed in diagnoses of disorders of psychological development (F80-F89) (0.8%, n=7) and mental disorder, not otherwise specified (F99) (1.4%, n=13), the difference between the 2 periods being statistically significant ($P=.001$, $\chi^2=31.96$).

Psychiatric consultations were requested for 32.2% (n=263) of patients pre-pandemic and 51.3% (n=462) during the pandemic ($P=.001$, $\chi^2=64.64$). Increase was also observed during the pandemic compared to the pre-pandemic period in diagnoses of disorders related to psychoactive substance use (F10-F19) (2.2%, n=20) and mood disorders (F30-F39) (10.6%, n=95), with a decrease in diagnoses of schizophrenia-related disorder (F20-F29) (4%, n=36). The difference between the 2 periods was statistically significant ($P=.001$, $\chi^2=90.90$).

The mean triage waiting time was 4.67 minutes (SD=4.55) before the pandemic and 3.57 minutes (SD=3.53) during it, the difference being

statistically significant ($P=.001$, $z=11.76$). Mean follow-up times in the emergency department were 368.91 minutes (SD=1264.65) before the pandemic and 205.54 minutes (SD=606.92) during it, the difference also being statistically significant ($P=.001$, $z=4.09$).

In terms of patient outcomes, it was determined that there was a decrease (88.6%, n=797) in patients discharged during the pandemic, an increase (6.3%, n=57) in patients who left the emergency department without permission, and there was a significant difference between periods ($P=.001$, $\chi^2=11.18$). There was no significant difference between the periods in terms of hospitalization and referral to another hospital (2.7%, n=24) ($P>.05$).

In addition, 73.7% (n=603) re-presented to the emergency before the pandemic and 14.0% (n=126) during it. The difference was statistically significant ($P=.001$, $\chi^2=625.57$). Mean numbers of repeat presentations were 2.18 (SD=1.76) pre-pandemic and 0.30 (SD=0.93) during the pandemic, and the difference was also statistically significant ($P=.001$, $z=25.34$) (Table 2).

Discussion

A partial, albeit statistically insignificant increase in patient numbers was observed during the pandemic in this study comparing emergency psychiatric presentations before and during the COVID-19 pandemic. However, pronounced decreases in emergency psychiatric presentations in the first months of the pandemic were observed in the USA,¹⁴⁻¹⁶ Germany,^{3,17,18} Western Australia,¹⁹ Istanbul in Türkiye,⁶ Spain,^{12,13} Italy,²⁰ Ireland,⁷ Paris,²¹ and Portugal.¹¹ Hartnett et al's⁷ 1-year comparisons

Table 2. Comparison of Patients' Descriptive Characteristics Before and During the Pandemic

Characteristics	Before the Pandemic (n = 818)	During the Pandemic (n = 900)	z/P
	x ± SD (min-max)	x ± SD (min-max)	
Age (years)	40.67 ± 14.28 (19-90)	41.45 ± 16.67 (17-98)	z = 366.800.5/P = .899
Number of repeated presentations to the emergency department	2.18 ± 1.76 (0.0-6.0)	0.30 ± 0.93 (0.0-8.0)	z = 25.346/P = .001
Triage waiting time (minutes)	4.67 ± 4.55 (1.0-85.0)	3.57 ± 3.53 (0.0-10.0)	z = 11.768/P = .001
Length of emergency department follow-up (minutes)	368.91 ± 1264.65 (1.0-15840)	205.54 ± 606.92 (3.0-8640)	z = 4.097/P = .001
	n (%)	n (%)	χ ² /P
Gender			
Female	423 (51.7)	461 (51.2)	χ ² = 0.041/P = .839
Male	395 (48.3)	439 (48.8)	
Type of presentation			
On foot	804 (98.3)	850 (94.4)*	χ ² = 40.028/P = .001
Ambulance	6 (0.7)	50 (5.6)*	
Police	8 (1.0)	0 (0)*	
Reason for presentation			
Anxiety symptoms	532 (65.0)	601 (66.8)	χ ² = 139.136/P = .001
Aggression/risk of doing harm	87 (10.6)	28 (3.1)*	
Attempted suicide/suicidal ideation	35 (4.3)	61 (6.8)*	
Perceptual problem and hallucination	33 (4.0)	74 (8.2)*	
Exaggerated strange behavior, manic mood	2 (0.2)	4 (0.4)	
Depressive mood	4 (0.5)	19 (2.1)*	
Alcohol/substance use	66 (8.1)	45 (5.0)*	
Non-specific physical symptoms	40 (4.9)	0 (0.0)*	
Situational crises (trauma, bereavement)	19 (2.3)	58 (6.4)*	
Other	0 (0.0)	10 (1.1)*	
Emergency department preliminary medical diagnosis			
F10-F19	4 (0.5)	1 (0.1)	χ ² = 31.969/P = .001
F20-F29	13 (1.6)	32 (3.6)*	
F30-F39	32 (3.9)	35 (3.9)	
F40-F48	756 (92.4)	796 (88.4)*	
F50-F59	2 (0.2)	8 (0.9)	
Other	11(1.3)	28 (3.1)	
Outcome			
Discharge	760 (92.9)	797 (88.6)*	χ ² = 11.189/P = .011
Referral to another hospital	10 (1.2)	22 (2.4)	
Hospitalization	19 (2.3)	24 (2.7)	
Left without permission	29 (3.5)	57 (6.3)*	
Repeat presentation to the emergency department			
Yes	603 (73.7)	126 (14.0)*	χ ² = 625.579/P = .001
No	215 (26.3)	774 (86.0)*	
Psychiatric consultation request status			
Yes	263 (32.2)	462 (51.3)*	χ ² = 64.641/P = .001
No	555 (67.8)	438 (48.7)*	
Psychiatric consultation medical diagnosis			
F10-F19	0 (0.0)	20 (2.2)*	χ ² = 90.902/P = .001
F20-F29	70 (8.6)	36 (4.0)*	
F30-F39	51 (6.2)	95 (10.6)*	
F40-F48	17 (2.1)	13 (1.4)	
F50-F59	0 (0.0)	0 (0.0)	
Other	130 (15.4)	64 (7.1)	
Z004	120 (14.7)	48(5.3)	

*P < .001. Min, minimum; Max, maximum.

revealed a marked decrease in emergency psychiatric presentations in the first months, but more psychiatric presentations during long-term observation.⁷ The results of this study are therefore specific to the period during which it was performed, but changes may be predicted in long-term studies during the ongoing pandemic. However, it has also been reported that increasing community mental health services and telepsychiatric services may directly affect the number of patients presenting to the emergency department.^{6,13} Measures such as the Turkish Istanbul Provincial Health Directorate's Distant Mental Health Support Program for Coronavirus telepsychiatric services are also reported to impact patient numbers.⁶ We think that the lack of such initiatives in the region where the present research was conducted is an important factor affecting the findings and that telepsychiatric services now need to be extended across Türkiye.

No significant differences in terms of patient age or gender were observed between the pre-pandemic and pandemic periods in this study. Although this is consistent with some previous research,^{12,19} several studies have reported a male predominance,^{3,13} a decrease in female patients,¹¹ and a higher mean patient age.⁶ A decrease was also observed in this study in the number of patients presenting on foot or brought in by the police, and an increase in presentations by ambulance. Previous studies have reported similar findings^{6,19} or else no change in presentation types.³ However, based on the study findings, it may be concluded that presentations made on foot decreased due to a fear of transmission from the hospital environment and that patients did not present with mild symptoms, but were later brought in by ambulance when their conditions worsened. In addition, the increase in the proportion of patients hospitalized during the pandemic, albeit a statistically insignificant one, may represent further evidence for this.

Examination of frequencies of and reasons for presentations to the emergency department during the pandemic revealed significant increases in the numbers of patients presenting due to attempted suicide/suicidal ideation, hallucinations and perception problems, depressive mood, and situational crises. It has been predicted that the risk of transmission and isolation during the pandemic may increase the risk of anxiety, depressive symptoms, and suicide in the general population.^{9,13,22} In a study from Germany, Seifert et al³ reported that the current conditions of 20% of patients presenting to the emergency department due to mental problems were associated with the pandemic. They also reported that patients experienced marked forgetfulness and social isolation and that persecution delusions and visual hallucinations increased among patients with schizophrenia. In their study from Western Australia, Dragovic et al¹⁹ also reported an increase in presentations to the emergency department due to social-behavioral problems and anxiety disorder at the panic level, while presentations associated with other psychiatric problems decreased. Again consistent with the current research findings, an increase has also been reported in presentations due to the risk of suicide during the pandemic.^{3,8} However, other studies have reported either a decrease in the numbers of patients presenting due to attempted/risk of suicide,^{6,10,19,23} no significant change in presentation rates,^{7,13} or that suicide-related presentations at the beginning of the pandemic increased subsequently (such as 6 weeks later).^{8,24} Yalçın et al⁶ observed that young patients and individuals newly diagnosed with psychiatric disorders presented more frequently to the emergency department due to attempted suicide. As also reported in the literature,^{6,8} being unable to cope with the difficulties created by quarantine and isolation, particularly in the early period of the pandemic, may account for the increased risk of suicide. Further large-scale, longer-term studies might now be usefully performed in order to determine the effect of the pandemic on suicide rates. However, rates of presentation due to alcohol/substance use in this study decreased. Inconsistent findings have been reported

concerning alcohol/substance use during the pandemic. Some studies have reported an increase in presentations due to alcohol^{3,5} and substance use,¹⁹ while others have reported an increase in alcohol-related presentations.^{7,19} Studies have also observed a decrease associated with alcohol and substance use in the early months of the pandemic in particular, followed by a subsequent increase.^{8,16} The results of the present study indicate a decrease in alcohol/substance use during the pandemic. The World Drug Report stated that the COVID-19 pandemic had resulted in the widespread consumption of alcohol and substance use at home.²⁵ The view has also been expressed that individuals were reluctant to present for treatment due to the risk of transmission.²⁶ In addition, substance use disorder has been shown to be capable of triggering other mental problems,^{10,13} and patients have presented to the emergency department due to suicidal ideation.^{3,8} From that perspective, we think that it is important to evaluate all types of psychiatric presentation in terms of alcohol/substance use and that longer-term studies are needed on this subject. On the other hand, several studies confirm the finding of the present research concerning a decrease in patients presenting due to aggression.^{6,10,19} A study from the UK determined a significant fall in emergency department presentations due to violence/aggression outside the home following the introduction of restrictions.²⁷ Reported risk factors for presentations associated with aggressive behavior include male gender, youth, and frequent emergency visits.⁶ The research findings may explain the reason for the decrease in presentations made with the police during the pandemic and may reflect a diminution of triggering factors in social life.

In terms of emergency department preliminary medical diagnoses, a significant increase was determined in F20-F29 medical diagnoses during the pandemic, together with a decrease in F40-F48 medical diagnoses, and increases in F80-F89 and F99 medical diagnoses. Some previous studies have reported either no change in F10-F19 medical diagnoses during the pandemic^{3,13,28} or else decreases.¹⁸ Increases have been reported in F20-F29 medical diagnoses in some studies,¹² decreases in others,^{7,11} or similar results before and after the pandemic.^{3,13} Some studies have reported an increase in F30-F39 medical diagnoses^{5,6} and others decreases.^{3,11,24,28} F40-F49 medical diagnoses have also been reported to have increased,^{3,5,7,19} decreased,^{7,12,13,24,28} or remained unchanged.^{3,18} Similar levels of F50-F59 medical diagnoses have been reported.³ The variations among study findings may be attributable to social and cultural differences. However, in order to be able to determine the effect of the pandemic on medical diagnoses during the pandemic in this and other studies, it is important to establish whether the diagnoses were recent or earlier and to examine other precipitating factors. In addition, the increases in diagnoses of psychological development disorder and non-specified mental disorder during the pandemic are noteworthy, and we think that the reasons for this also require investigation.

A significant increase was observed in psychiatric consultation request rates during the pandemic in this research. Consultations associated with medical diagnoses of psychoactive substance use (F10-F19) and mood disorders (F30-F39) particularly increased, while decreases were observed in consultations associated with medical diagnoses of schizophrenia-related disorder (F20-F29). Some studies have reported an increase in consultation request rates²⁹ and others a decrease.^{8,21} Researchers have reported worsening during the pandemic in approximately 20% of patients with histories of mental disorders,^{5,10} with psychiatric consultations frequently being requested due to suicidal ideation and alcohol/substance use disorders⁸ and psychotic disorders.²¹ In this study, when the reasons for admission, emergency department pre-medical diagnoses and consultation medical diagnoses were compared during the pandemic, it suggests that psychiatric consultation is requested for patients with very severe symptoms. In

the emergency room where the study was conducted, consultation-liaison psychiatry services (clinical treatment) are carried out only by physicians, and there is no consultation-liaison psychiatry nurse. Telepsychiatry services are not provided. The differences between medical diagnoses indicate that emergency service personnel need training on emergency psychiatric disorders and consultation liaison psychiatry services such as research, education, management, and consultancy need to be developed.

Significant decreases were observed in this study during the pandemic in terms of patients' triage waiting times (from 4.67 minutes to 3.57 minutes) and emergency department follow-up times (from 6.15 hours to 3.41 hours). In their study from Western Australia, Dragovic et al¹⁹ reported an increase in rates of use of the very urgent triage categories (1-2-3); in other words, patients were kept waiting for shorter times, while lengths of stay in the emergency department decreased significantly (from 6.7 hours to 5.6 hours). It may therefore be concluded that in order to reduce the rate of transmission, emergency department professionals intervene within a short period of time and lower excessive waiting times. On the other hand, this finding may also be associated with the number of patients leaving without permission. The rate of patients discharged from the emergency department decreased during the pandemic, while that of patients leaving the department without permission increased significantly. Inconsistent results have been reported in the literature, some studies reporting that daily discharge rates in the emergency department decreased during the pandemic¹² while others reported significant increases,⁶ although no findings regarding leaving without permission were encountered. The increase in leaving the department without permission and statistically insignificant increases in hospitalization and referral rates to another hospital observed in this study may account for the decrease in discharge rates. The pandemic is expected to directly affect emergency psychiatric status in 25% of patients.¹⁰ The increase in hospitalization and referral rates to another hospital in these patients may be an indicator that presenting patients have severe mental impairment. On the other hand, it is also possible that patients discharging themselves without permission did so because of the risk of transmission. However, since leaving without permission may increase the risks to the patient's health and also result in legal difficulties, it is vitally important to investigate the factors affecting this.

Two or more presentations to the emergency department in 2 months are regarded as frequent presentation.⁶ Frequent presentations have been reported during the pandemic.^{3,6,30} However, a marked decrease was observed in the rate of repeat presentations during the pandemic in the present study, and in terms of mean values, there were no frequent presentations at all. This shows that the majority of individuals coming to the hospital were presenting for the first time. We think that the decrease in repeat presentation rate may be associated with fear of transmission by virtue of the nature of the pandemic.

Conclusion

While no change was observed in the number of presentations, or in the age and gender of individuals presenting during the pandemic, differences were observed in the types of presentation to the emergency department, reasons for presentation, preliminary medical diagnoses, consultation requests and medical diagnoses, triage waiting times, follow-up time in the emergency department, patient outcomes, and repeat presentations and numbers thereof. By determining the situation during the pandemic, the research revealed the factors that should be taken into account in order to reduce potential risks in emergency psychiatry and to increase the quality of the service. It also shows that emergency department physicians and nurses require

training on the subject of mental disorders and that improvements are needed in the health system. This study will serve as a guide in terms of the improvement of mental services, developing consultation liaison psychiatry (medicine, nursing) services, improving emergency department conditions in the light of the needs identified, and spreading the use of services such as telepsychiatry. Further, more extensive and longer-term studies may provide more detailed data concerning such measures.

Limitations

The principal limitation of this study is that it was conducted in a single center and that limited numbers of patients were included in it. The fact that the data were obtained after the event, a natural limitation to retrospective studies, also imposes a limitation in terms of detailed information. On the other hand, the results yielded by the data may vary over the course of the pandemic. For that reason, the fact that the data were obtained over 2 3-monthly periods, before and after the pandemic, may also be regarded as a limitation. The lack of expert opinion for the descriptive form is another limitation of this study

Ethics Committee Approval: Ethical committee approval was received from the Ethics Committee of Izmir Kâtip Celebi University (Date: January 21, 2021 decision no: 16).

Informed Consent: The study is a retrospective study and patient consent could not be obtained because the data were obtained from the hospital's data processing system.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – A.B.A., S.B; Design – A.B.A., S.B; Supervision – A.B.A., S.B; Funding A.B.A., S.B; Materials – A.B.A., S.B; Data Collection and/or Processing – S.B; Analysis and/or Interpretation – A.B.A.; Literature Review – A.B.A.; Writing – A.B.A.; Critical Review – A.B.A., S.B.

Declaration of Interests: The authors declare that they have no competing interest.

Funding: The authors declared that this study has received no financial support.

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