Research Article / *Araştırma Makalesi*

Ege Journal of Medicine / *Ege Tıp Dergisi* 2023; 62 (1): 55-60

The evaluation of the comparison between pre- and post-pandemic era regarding emergency psychiatric consultations

Acil psikiyatri konsültasyonlarının pandemi öncesi ve sonrası karşılaştırmalı değerlendirilmesi

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ABSTRACT

Aim: This study aims to determine the quantitative or qualitative changes in emergency psychiatry consultations before and during the COVID-19 pandemic.

Materials and Methods: The socio-demographic characteristics and clinical features of 233 patients were retrospectively collected and analyzed. And their data were compared regarding their emergency psychiatry consultations before (between March 11th, 2019 and March 10th, 2020) and during (between March 11th, 2020 and March 10th, 2021) the spread of COVID-19.

Results: The patients' consultation ratio (psychiatry consultations to total emergency room administrations) increased during the pandemic (0.03% vs 0.07%). Among these patients, the diagnosis of alcohol and substance use disorder (6.1% vs. 16.1%) (p=0.03) increased while the diagnoses of obsessive-compulsive disorder (5.2% vs. 0%) (p=0.01) and bipolar disorder (21.1% vs. 20.5%) (p=0.02) decreased. Hostility among patients during consultation increased (19.1% vs. 30.8%) (p=0.04). Suicidal thoughts decreased (25.2% vs. 14.5%) (p=0.04). Furthermore, voluntary inpatient treatment (20.9%-34.2%) (p=0.02) increased, transfer to another clinic (25.2% vs. 12%) (p=0.01) and outpatient treatment (46.1% vs. 42.7%) (p=0.01) decreased. An increase in oral treatments (10.4% vs. 26.5%) (p=0.02) and a decrease in parenteral treatments (71.3% vs. 54.7%) (p=0.01) were reported.

Conclusion: Our findings confirmed that after COVID-19 spread, clinical features, diagnosis, and treatment modality have changed among emergency psychiatric consultations. Evaluating these implications may be the first step in improving the healthcare system and reshaping psychiatric approaches according to the new requirements of the new pandemics.

Keywords: COVID-19, emergency psychiatry consultations, pandemics.

"This manuscript has been presented at the 30th European Congress of Psychiatry as an e-poster (EPV0384) on 4-7 June 2022, Budapest."

ÖZ

Amaç: *Bu çalışmada COVID-19 pandemi öncesi ve COVID-19 sürecinde acil psikiyatri konsültasyonlarındaki nicel veya nitel değişikliklerin belirlenmesi amaçlamaktadır.*

Gereç ve Yöntem: *11 Mart 2019 tarihinden önce ve sonraki 1 yıllık süreçte acil servisten psikiyatri konsültasyonu istenmiş olan 233 hastanın sosyodemografik özellikleri ve klinik özellikleri geriye dönük olarak toplandı ve analiz edildi.*

Bulgular: *Pandemi sürecinde öncesine göre acil servise başvuran hastalardan psikiyatriye konsulte edilenlerin oranının arttığı saptandı (%0,03'e karşı %0,07). Alkol ve madde kullanım bozukluğu tanısı alan hasta sayısı artarken (%6,1'e karşı %16,1) (p=0,03), obsesif kompulsif bozukluk (%5,2'ye karşı %0) (p=0,01) ve bipolar bozukluk (%21,1'e karşı %20,5) (p=0,02) azaldığı görüldü.*

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Application date: 25.04.2022 Accepted: 19.07.2022

Konsülte edilen hastalar arasında hostilitenin arttığı (%19,1'e karşı %30,8) (p=0,04), intihar düşüncelerinin (%25,2'ye karşı %14,5) (p=0,04) azaldığı saptandı. Ayrıca, gönüllü yatarak tedavi (%20,9-%34,2) (p=0,02) oranının arttığı; başka bir kliniğe transfer edilme (%25,2'ye karşı %12) (p=0,01) ve ayakta tedavi oranları (%46,1'e karşı %42,7) (p=0,01) azaldığı görüldü. Oral tedavi oranlarında artış (%10,4'e karşı %26,5) (p=0,02) ve parenteral tedavilerde azalma (%71,3'e karşı %54,7) (p=0,01) izlendi.

Sonuç: *Bulgularımız, COVID-19 yayılımından sonra acil psikiyatri konsültasyonları arasında klinik özelliklerin, tanı ve tedavi şeklinin değiştiğini doğruladı. Bu sonuçların değerlendirilmesi sağlık sistemini iyileştirmenin ve psikiyatrik yaklaşımları yeni pandemilerin yeni taleplerine göre yeniden şekillendirmenin ilk adımı olabilir.*

Anahtar Sözcükler: *COVID-19, acil psikiyatri konsültasyonu, pandemi.*

INTRODUCTION

Coronavirus SARS-CoV-2 (COVID-19) had been declared to be a pandemic by World Health Organization (WHO), and the first documented case of COVID-19 was announced in Turkey on March 11th, 2020 (1, 2). In Turkey, a partial lockdown began on March 21th, 2020, and a national lockdown began in April 2020 (3). Most of the current hospitals had served as "pandemic hospitals", and many inpatient clinics of several departments served patients infected with COVID-19 for months.

Mental health was significantly get affected by factors such as lockdowns, direct and indirect effects of the fear of getting infected (both for one's self and relatives), the acute changes in healthcare facilities due to new demands, economic loss due to the pandemic, and the increased burden on healthcare providers (4, 5).

As far as we know, there are limited studies that investigate emergency psychiatry consultations regarding the difference between before and during the COVID-19 pandemic in Turkey. Since emergency psychiatry consultations mirror the changes in the mental health of the society and benefit from the results of the obligatory changes in hospitals, we assume that evaluating the quantitative or qualitative changes in emergency psychiatry consultations both pre- and during the COVID-19 pandemic may enable us to learn more about the psychiatric consequences of pandemic and determine new approaches, treatment options, mental and public health strategies.

MATERIALS and METHODS

Of 52,666 cases, 281 were requested to have psychiatric consultations and were admitted to the emergency room between March 11th, 2019 and March 10th, 2021. Of 281 cases, 46 were excluded as they were younger than 18 and 2 were excluded due to insufficient data. We retrospectively collected the socio-demographic characteristics, alcohol and substance use, comorbidities, family history, psychiatric history, previous psychiatric diagnosis and duration, suicidal thoughts and behavior, hostility, admission reason, the change in sleep and appetite, triggering factors, Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V) diagnosis, therapeutic prescriptions and management of 233 urgent psychiatry consultations from electronic documentation system of Zonguldak Bulent Ecevit University Health Application and Research Center. The study complies with the Declaration of Helsinki and was approved by Zonguldak University Clinical Studies Ethical Committee on the date of 22/09/2021 with an approval number of 2021/18-5. The written consent forms regarding treatments were obtained from the patients prior to the treatment. Our study has a retrospective design and was already approved by the Ethics Community, and verbal informed consent was obtained prior to the interview.

IBM SPSS Statistics Version 18 (IBM Inc., Armonk, NY, USA) was used for statistical analysis. The emergency psychiatry consultations were compared before (between March 11th, 2019 and March 10th, 2020) and during (between March 11th, 2020 and March 10th, 2021) the spread of COVID-19. We compared the quantitative differences between these two groups and used Mann Whitney U test to analyze the variables "age" and "duration of previous psychiatric diagnosis" and used the chi-square test to analyze other nominal variables.

RESULTS

After the pandemic, the patients' consultation ratio (psychiatry consultations to total emergency

room administrations) increased (0.03% vs 0.07%). Among these, the ratio of patients with the diagnosis of “Alcohol and Substance Use Disorder” (6.1% vs. 16.1%, p=0.01) increased, while the ratio of patients with the diagnosis of “Obsessive-Compulsive Disorder” (OCD) (5.2% vs. 0%, p=0.01) and “Bipolar Affective Disorder” (21.1% vs. 20.5%, p=0.02) decreased (Figure-1).

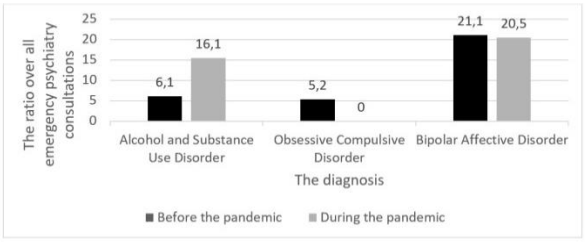

Figure-1. The statistically significant changes in the ratios of DSM-V diagnoses over all emergency psychiatric consultations before and during the pandemic.

Hostility among patients during consultations increased (19.1% vs. 30.8%, p=0.04), and suicidal thoughts decreased (25.2% vs. 14.5%, p=0.04). Furthermore, voluntary inpatient treatment increased (20.9% vs. 34.2%, p=0.02) while transfer to another clinic (25.2% vs. 12%, p=0.01) and outpatient treatment (46.1% vs. 42.7%, p=0.01) decreased. An increase in oral treatments (10.4% vs. 26.5%, p=0.02) and a decrease in parenteral treatments (71.3% vs. 54.7%, p=0.01) were recorded.

Moreover, no statistical significance was found between changes in socio-demographic characteristics (age, sex, marital and educational status, the presence and characteristics of people living together), comorbidities, family history, psychiatric history, the previous and/or present psychiatric diagnosis, and duration, the reason for admission, the change in sleep and appetite, characteristics of triggering factors, DSM-V diagnosis before and during COVID-19 pandemic.

DISCUSSION

COVID-19 pandemic has negatively affected mental health in many ways. Some of these factors were related to the neurotropism of the virus, the fear of getting infected and of losing one’s relatives, financial losses, social isolation, and a decline in preoccupations (4-7). Individuals with a diagnosis of psychiatric disorder are known to be more vulnerable to stressful life events, therefore, the pandemic might worsen psychiatric symptoms (8). The increase in psychiatry consultations’ ratio compared to the total emergency room administrations’ ratio during the pandemic (when compared to the pre-pandemic era) conceivably reflects these negative effects of the pandemic. This finding may also be relevant to the strategies of the hospitals coping with the pandemic by providing healthcare only for emergency cases and COVID-19 cases. Furthermore, patients with psychiatric disorders may not consult clinics due to the fear of infection, and restrictions of governments which could have led to insufficient treatment. So the patient’s conditions worsened and thus, a necessity to apply emergency services emerged. In some studies with contradictory results, the reason for the decrease was suggested to be due to the fear of infection and not specifically due to psychiatric reasons (9, 10).

Self-medication can be defined as the use of alcohol and substance to cope with stressful events, anxiety, and depression (11). Since the COVID-19 pandemic is associated with an increase in the prevalence of depression and anxiety, self-medication can be one of the mechanisms to explain the increase in alcohol and substance use in our study (12, 13). Moreover, many inpatient rehabilitation clinics halted their services for several months which led to excessive alcohol and substance consumption due to the lack of adequate treatment, and self-medication became a strategy to cope with the impacts of the pandemic in daily life. Other diagnostic features can be exaggerated deprivation symptoms and increased aggressive and impulsive behaviors as the access to alcohol and substances was restrained by the lockdown. Seifert et al. and Capuzzi et al. pointed out a rise in the number of patients with the diagnosis of alcohol and substance abuse after COVID-19 spread whereas, Mc Andrew et al. and Dragovic et al. reported a decline (10, 13-15). These findings are consistent with our findings.

The number of emergency consultations of patients with OCD decreased after the spread of COVID-19. We hypothesized that precautions such as hand washing, wearing masks, social isolation, and lock-down may have triggered the obsessions and the avoidance behaviors of individuals with a previous diagnosis of OCD hence, the anxiety and discomfort caused by obsessions and especially compulsions have decreased. Therefore, the patients might not

have needed to consult the emergency department. Contrary to our findings, several studies highlighted the worsening in the symptoms of OCD patients while there is no current study showing the opposite (10, 16, 17). Our results might not have been based on an actual decrease in symptoms but a decrease in hospital administrations due to fear of infection.

We reported fewer bipolar disorder patients who consulted the clinics than those who consulted the emergency department during the pandemic (compared to the pre-pandemic era), likewise, some studies also pointed out lower rates of relapses, worsening of symptoms, and severe psychiatric symptoms (18, 19). These positive outcomes of the pandemic might be because of the lockdowns that led to an environment with fewer stressors, regular daily life, and family support hence, a more stable mood and fewer manic episodes were achieved (20). In contrast, Yocum et al. reported that patients with bipolar disorder were more negatively affected by the pandemic compared to the control group (21). Since the patients with bipolar disorders were shown to have higher rates of comorbidities such as diabetes, cardiovascular diseases, and respiratory diseases than the general population, they might experience a higher level of COVID-19 fear and so, didn't apply to emergency departments regardless of their symptoms (22).

Heitzman mentioned "pandemic acute stress disorder'' which was characterized by symptoms, such as motor anxiety, increased vigilance, irritability, anger, verbalized anger, and aggressive behaviors (23). Parola et al. recorded increased aggressive behaviors in adolescents during the pandemic compared to the post-pandemic era (24). These studies support our result of increased hostility after the spread of COVID-19 infection while, to our knowledge, there are no studies showing contradictory results.

There are studies showing decreased, increased, and non-altered ratios regarding suicidal ideas and behaviors (13, 14, 25, 26). In one hand, the studies which reported a decline in suicidal ideas and behavior hypothetically linked their findings to decreased hospital visits rather than an actual decrease in suicidal ideas and behavior (12, 13). On the other hand, similar to our results, several studies reported a decrease in suicide rates during the first months of the pandemic (27, 28). The initial decline in suicide rates can be explained by the "pulling-together effect" or "honeymoon effect" whereby a shared life-threatening experience such as natural disasters or terrorism attempts can increase social connectedness (27-29). Since our study involves only a one-year period after the first official COVID-19 case was announced, we assume that a longer period would be more significant to determine the overall effects of COVID-19 on suicidal behavior.

A previous study in Italy reported an increase in involuntary inpatient treatment and a decrease in voluntary inpatient treatment and associated the findings with the fear of infection (30). Moreover, a study in Australia found a potentially significant increase in voluntary admissions and associated it with the perception of "safe" healthcare among the Australian population (31). Our study found an increase in voluntary inpatient treatment and no statistically significant change in involuntary inpatient treatments. In addition, our study showed a decrease in transfers to another clinic and outpatient treatment which can be explained by the policies of hospitals in our city. Many inpatient clinics minimized their services to inpatient psychiatric rooms during the pandemic whereas in our hospital the inpatient room continued to serve with only a 25% decrease in bed capacity. The findings in our study and the strategy of our inpatient clinics suggest that after taking adequate precautions, reducing the bed capacity to the minimum can improve cooperation among individuals with psychiatric symptoms.

As far as we know, there are no current studies that investigate the treatment method in emergency psychiatry consultations. We detected an increase in oral treatment regimens and a decrease in parenteral treatments during the pandemic. Fear of infection and the aim of minimizing physical contact with healthcare professionals may lead psychiatrists to prefer oral treatment regimens to parenteral treatments.

In addition to the limited nature of retrospective studies and observatory bias, the psychiatrist on call didn't specifically ask and/or documented how the COVID-19 pandemic impacted the patients' psychological state. Since the COVID-19 pandemic and its implications were only reported if the patient claimed them spontaneously, the direct and indirect effects of COVID-19 were probably more common than what our study reported. Objective methods such

as scales and questionnaires were not included in this study due to the nature of emergency psychiatry consultations. Also, only two timeframes in one year were compared because of the different trends of each period. We strongly believe that longer time intervals would be more informative. The idea of the pandemic may have been changed by time in many ways. For instance, as the number of infected people increases, ongoing exposure may change the cognitions about the pandemic. Besides, the characteristic features of COVID-19 infection have also altered.

CONCLUSION

Our findings confirmed that clinical features, diagnosis, and treatment modality have changed among emergency psychiatric consultations after COVID-19 spread. Evaluating these implications may be the first step in improving the healthcare system and reshaping psychiatric approaches according to the new requirements of the new pandemics.

Conflict of interest: The authors declare that they have no conflict of interest.

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