ORIGINAL ARTICLE / ÖZGÜN ARAŞTIRMA

DOI: 10.4274/tjcamh.galenos.2021.62533

Turk J Child Adolesc Ment Health 2022;29(2):100-6

Changing Trends in Child and Adolescent Psychiatric Admissions During COVID-19: A Retrospective Cross-sectional Study at a Tertiary Center in Turkey

COVID-19 Sırasında Çocuk ve Ergen Psikiyatri Başvurularında Değişen Eğilimler: Türkiye'deki Üçüncü Basamak Bir Merkezde Geriye Dönük Kesitsel Bir Çalışma

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ABSTRACT

Objectives: There are various disruptions in health services as a result of the coronavirus pandemic process, and it brings along various changes in the application and delivery of mental health services, as in all other health services. There are limited data about child and adolescent psychiatry admissions during the pandemic. This study aimed to investigate the characteristics and trends of child and adolescent psychiatry admissions to an outpatient clinic during the pandemic and to compare them with a similar period in 2019.

Materials and Methods: The study was a retrospective cross-sectional study including subjects admitted by appointment to a tertiary hospital. The data of the study were collected from electronic medical records. Admissions for three months (September, October, November) in 2019 and 2020 were reviewed. Psychiatric diagnosis (according to ICD 10) and clinical information (including age and place category) at admission were evaluated for each child and adolescent.

Results: There was a significant decrease in the total number of admissions during the pandemic period to the pre-pandemic period ($p<0.001$). During the pandemic period, an increase in the ratio of admission of the adolescent age group and female gender was detected. When the diagnostic distribution was examined, the diagnoses of obsessive-compulsive disorder ($p=0.002$), anxiety disorders ($p<0.001$) and speech and language disorders ($p<0.001$) were more common. The admission rates for these three disorders increased significantly compared with the pre-pandemic period. The rates of attention deficit hyperactivity disorder and specific learning disorder were found to be significantly lower compared to the pre-pandemic period.

Conclusion: Although recent studies have determined that psychiatric problems increase during the pandemic period, our findings show that admissions to the child and adolescent psychiatric outpatient clinic were decreased. Our findings also suggest that females and the adolescent age group is more vulnerable to the pandemic in terms of mental problems.

Keywords: COVID-19, pandemic, child and adolescent, psychiatric admission, anxiety disorders

ÖZ

Amaç: Koronavirüs pandemi sürecinin sonucu olarak sağlık hizmetlerinde çeşitli aksaklıklar olduğu, diğer tüm sağlık hizmetlerinde olduğu gibi ruh sağlığı hizmetlerine başvuruda ve bu hizmetlerin sunumunda çeşitli değişiklikleri beraberinde getirdiği bilinmektedir. Pandemi sırasında çocuk ve ergen psikiyatrisi başvuruları hakkında sınırlı veri bulunmaktadır. Bu çalışmanın amacı, pandemi sürecinde çocuk ve ergen psikiyatrisi poliklinik başvurularının özelliklerini ve eğilimi araştırmak ve 2019 yılının benzer dönemiyle karşılaştırmaktır.

Gereç ve Yöntem: Çalışma üçüncü basamak bir hastaneye randevu ile kabul edilen denekleri içeren geriye dönük kesitsel bir çalışmaydı. Çalışmanın verileri elektronik tıbbi kayıtlardan toplandı. 2019 ve 2020 yılının üç ayının (Eylül, Ekim, Kasım) başvuruları gözden geçirildi. Her çocuk ve ergen için başvuru sırasındaki psikiyatrik tanı (ICD 10'a göre) ve klinik bilgiler (yaş ve yer kategorisi dahil) değerlendirildi.

Bulgular: Pandemi döneminde pandemi öncesi döneme göre toplam başvuru sayısında anlamlı azalma saptandı ($p<0,001$). Pandemi döneminde ergen yaş grubu ve kız cinsiyet başvuru oranında artış tespit edildi. Tanı dağılımı incelendiğinde obsesif kompülsif bozukluk ($p=0,002$), anksiyete bozuklukları ($p<0,001$) ve konuşma ve dil bozukluğu ($p<0,001$) tanıları daha sıktı. Bu üç bozukluğun başvuru oranı pandemi öncesi döneme göre anlamlı olarak artmıştır. Buna karşın dikkat eksikliği hiperaktivite bozukluğu ve özgül öğrenme bozukluğu tanılarının oranları pandemi öncesi döneme göre anlamlı olarak düşük bulundu.

Sonuç: Son araştırmalar pandemi döneminde psikiyatrik sorunların arttığını saptamasına rağmen, edindiğimiz bulgular çocuk ve ergen psikiyatri polikliniğine başvuruların azaldığını göstermektedir. Bulgularımız aynı zamanda kız cinsiyetin ve ergen yaş grubunun ruhsal sorunlar açısından pandemiye karşı daha duyarlı olabileceğini düşündürmektedir.

Anahtar Kelimeler: COVID-19, pandemi, çocuk ve ergen, psikiyatrik başvuru, anksiyete bozuklukları

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Received/Geliş Tarihi: 23.05.2021 **Accepted/Kabul Tarihi:** 27.07.2021

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Introduction

Coronavirus disease-2019 (COVID-19) was detected in approximately 84 million people worldwide from December 2019 to January 2021, causing approximately 1.8 million deaths.[1] After appearing initially in March 2020, the number of cases began to increase rapidly in Turkey. The total number of cases reached approximately 2.2 million as of January 2021, and the number of people who died from the disease reached approximately twenty-one thousand.[2]

With the rapid spread of COVID-19 to the whole world, countries started to take precautions to prevent the spread of the disease, such as banning international travels, forcing quarantines and lockdowns.[3,4] These precautions and changes related to the pandemic affected health care in the early stages of the pandemic. Emergency patients were given priority in emergency services and elective surgeries were postponed.[5] In our country, some hospitals have been transformed into pandemic hospitals, and their capacities have been increased.[5] To reduce hospital visits, patients who had a medication report could buy medication directly from the pharmacy without a prescription. In addition, the duration of the health board reports for the disabled was extended.[6]

During the pandemic periods, hospitals are considered risky places by people.[7] Previous studies showed that admissions to emergency services decreased during the COVID-19 pandemic.[8] Studies evaluating the effect of the COVID-19 pandemic on psychiatric hospital admissions are limited. It was found there was a 52.2% decrease in psychiatric emergency admissions during the pandemic period compared to the previous year in Portugal.[9] A similar study compared psychiatric hospital admissions in the first period of the pandemic (February-March 2020) with the same months of 2019 in Italy. Despite a significant decrease in voluntary admissions, there was no noticeable decrease in involuntary admissions.[10] Another study in the early stages of the pandemic showed that hospital admissions to child and adolescent psychiatry had decreased at different rates in China.[11]

Children were thought to have milder or asymptomatic disease compared with adults. It was suggested that this situation caused children to be diagnosed with a lower rate of COVID-19 and would play a role in the transmission.[12] As a result, face-to-face education has been postponed or canceled in some countries including Turkey.[5,13] Schools have an important place in the social and emotional development and routine of children.[14] The closure of schools and lockdowns although beneficial from a public health standpoint, might increase various risks for children. During the pandemic period, children stayed away from their daily routines. Their sleep patterns were disrupted, their physical activities decreased, and the time spent on the screen increased.[13] As a result, there have been reports about the effects of being in quarantine on mental health. Studies have shown that people react to being in quarantine with fear, anger, lethargy, confusion, insomnia, and experience elevated levels of psychological stress compared to the general population.[15] In a review including 51 studies, high rates of depression, anxiety, and post-traumatic stress disorder symptoms were reported in children during the period of COVID-19.[14] The above studies suggest that the number of psychiatric admissions increase in children and adolescents during the pandemic period.

Studies on hospital admissions generally include the acute phase of the pandemic and mostly evaluate emergency patient admissions.[9-11] Studies on the later stages of the pandemic are limited.[8] To the best of our knowledge, there is no study in the literature evaluating the clinical features of outpatient admissions for the child and adolescent psychiatry. In this study, we compared the number and characteristics of admissions to the child and adolescent psychiatry department during the pandemic period with respect to the same period in 2019.

Materials and Methods

This was a retrospective cross-sectional study including subjects admitted by appointment to the Department of Child and Adolescent Psychiatry, Giresun University Maternity and Children Training and Research Hospital, which is a tertiary hospital. Our service has an appointment system coordinated by the Ministry of Health, with which patients can make their appointments via the phone or online. The outpatient clinic service is provided with direct interviews. There was no telehealth service option. The data of the study were collected from electronic medical records. Admissions from two different periods were included in the study: September 1 to November 30, 2019, and September 1 to November 30, 2020. The capacity of patient admission of our service was similar in both periods (each year 65 working days). Data screening and extraction were conducted by three experienced child and adolescent psychiatrists (E.H., B.Ş., B.S.Ö.).

Referred psychiatric symptoms and clinical information were evaluated according to ICD 10 for each subject. We examined common disorders under diagnostic groups: Neurodevelopmental Disorders (Attention deficit hyperactivity disorder (ADHD), intellectual disability (ID), oppositional defiant disorder (ODD), conduct disorder (CD), autism spectrum disorder (ASD), specific learning disorder (SLD), Tic disorders and speech and language disorders [language disorder, speech sound disorder and childhood-onset fluency disorder (stuttering)], depressive disorders (major depression and dysthymia), anxiety disorders (separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder (social phobia), panic disorder, agoraphobia, generalized anxiety disorder), obsessive-compulsive disorder (OCD). Less common disorders in the children and adolescents were included among other psychiatric disorders (bipolar disorders, schizophrenia spectrum disorders, eating disorders etc.). Reasons for admissions not having any ICD 10 psychiatric diagnosis, such as relationship problems, nail biting, thumb sucking, were included in the advisory support group.

Information about the patients such as age, gender, and address (city/county/out of city) was also noted. To better determine

the effect of the pandemic on age groups, ages were divided into three categories: 0-6 age groups (preschool age), 6-12 age groups (school-age) and 12-18 (adolescent) age groups.

Statistical Analysis

All analyses were performed on SPSS version 21.0 (IBM Inc., Armonk, NY, USA). Histograms and Q-Q plots were used to determine whether variables were normally distributed. Data are given as mean ± standard deviation for continuous variables according to the normality of distribution and as frequency (percentage) for categorical variables. The number of admissions in 2019 and 2020 was analyzed with one-sample chi-square test under the null hypothesis of equal probabilities. Continuous variables were analyzed with the independent samples t-test. Categorical variables were analyzed with the chi-square tests. Two-tailed p values of less than 0.05 were considered statistically significant.

Ethical approval was obtained from the University of Health Sciences Turkey, Kanuni Training and Research Hospital Clinical Research Ethics Committee (decision no: 2021/27, date: 12.02.2021). All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Results

We had a total of 3,950 patients (2,336 boys and 1,614 girls) within two periods. The number of admissions was 2,162 in 2019 and 1,788 in 2020. The decrease in the number of admissions was 374 (17.30%) (p<0.001). Figure 1 shows the trends in admissions for study weeks. There were 1320 (61.05%) boys and 842 (38.95%) girls in 2019 while there were 1016 (56.82%) boys and 772 (43.18%) girls in 2020. Rate of females was significantly higher in 2020 than in 2019 (p=0.007). Mean age of the patients was 10.9±4.2 years (range= 0.9-18.6). Mean age at applications was significantly higher in 2020 than in 2019 (p=0.029). In addition, the rate of adolescents was significantly higher in 2020 than in 2019 (p<0.001). Most of the patients were living in urban areas in both 2019 (50.14%) and 2020 (57.97%). The rate of applications from urban areas was significantly higher in 2020 than in 2019 (<0.001) (Table 1).

Neurodevelopmental disorders were the most common diagnoses in both years and ADHD was the most commonly diagnosed among this group. Rates for neurodevelopmental disorders (p<0.001), ADHD (p<0.001) and SLD (p=0.033) were significantly higher in 2019 than in 2020. Rates for speech/ language disorders percentage (p<0.001), anxiety disorder (p<0.001) and OCD (p=0.002) were significantly higher in 2020 than in 2019. There were no significant differences between years with regard to ID, ODD, CD, ASD, tic disorders, depressive disorders, admission for advisory support and other psychiatric disorders (Table 2, Figure 2).

Discussion

In this study, clinical and demographic characteristics of admissions to child and adolescent psychiatry outpatient service during autumn 2020, was compared with the autumn of 2019, which is the pre-pandemic period. Since the COVID-19 cases tended to increase in the autumn months in our country and autumn is an active school period in Turkey, the current study was planned on this period.[2] The findings showed a significant decrease in the number of voluntary admissions during 2020 compared to 2019. In 2020, while there was a decrease in admissions due to ADHD and SLD, the percentage of admissions due to anxiety disorder, OCD and speech and language disorders increased. It was also found that the rate of admissions of females and adolescents were increased during the pandemic period.

Most of the previous studies evaluating psychiatric admissions

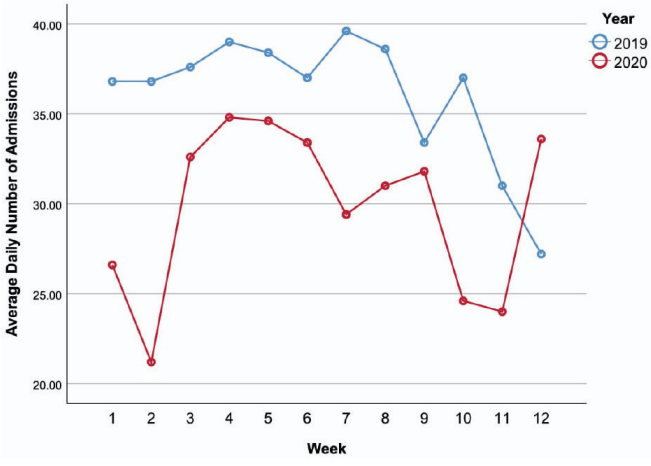

Figure 1. Average daily number of admissions between September 1 to November 30, 2019 and on September 1 to November 30, 2020

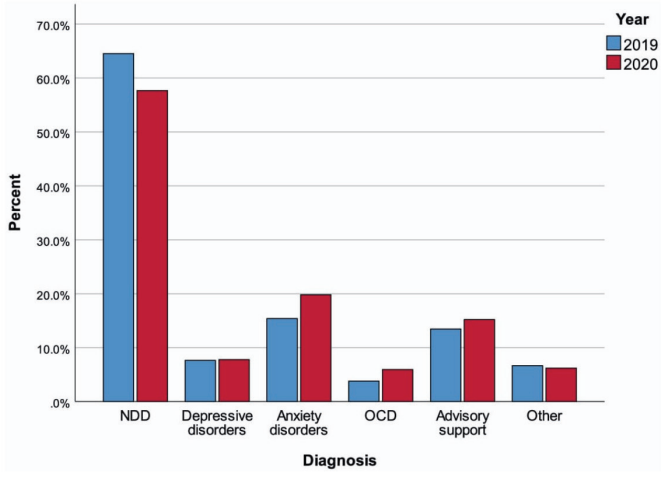

Figure 2. Comparison of admission diagnoses between two years

OCD: Obsessive-compulsive disorder, NDD: Neurodevelopmental disorders

during the pandemic period were conducted on emergency admissions and adult populations.[10,16] A limited number of studies evaluating the child and adolescent psychiatry admissions showed that both emergency and outpatient psychiatric admissions decreased. Ferrando et al.[17] found that there was no difference in emergency psychiatric admissions among adults during the pandemic period, but a decrease in the admissions of children and adolescents. In March 2020, it was found that outpatient visits and inpatient admissions to child and adolescent mental health services decreased by nearly half in hospitals in China.[11] Another study showed that there was more than half a decrease in admissions to the child and adolescent psychiatry service before and during COVID-19 lockdown in the United Kingdom.[18]

In this study, the rate of admissions to child psychiatry department was found to reduce by 17.0% compared to the previous year. The fact that the rate of decrease in admission was relatively lower in our study may be related to the time frame of the study. The abovementioned studies were conducted by evaluating the admissions in the acute phase of the pandemic. At the beginning of the pandemic, people might have been more concerned about going to the hospital because uncertainties, warnings and restrictions. Over time, people may have less anxiety about

Table 1. Admission and patient characteristics of child psychiatry department of a tertiary hospital during pre-pandemic and pandemic periods

	Year				
	2019	**2020**	**Change**	**Total**	**p**
Number of admissions	2162	1788	-17.30%	3950	**<0.001**
Gender					
Males	1320 (61.05%)	1016 (56.82%)	-23.03%	2336 (59.14%)	**0.007**
Females	842 (38.95%)	772 (43.18%)	-8.31%	1614 (40.86%)	
Age (years)	10.81±4.10	11.11±4.34	0.30±0.13	10.94±4.21	**0.029**
Age groups					
0-6	259 (11.98%)	236 (13.20%)	-8.88%	495 (12.53%)	**<0.001**
6-12	1020 (47.18%)	688 (38.48%)	-32.55%	1708 (43.24%)	
12-18	883 (40.84%)	864 (48.32%)	-2.15%	1747 (44.23%)	
Living conditions					
Urban	1082 (50.14%)	1036 (57.97%)	-4.25%	2118 (53.69%)	**<0.001**
Rural	1042 (48.29%)	721 (40.35%)	-30.81%	1763 (44.69%)	
Other urban/rural	34 (1.58%)	30 (1.68%)	-11.76%	64 (1.62%)	

Data are given as mean ± standard deviation for continuous variables according to normality of distribution and as frequency (percentage) for categorical variables

Table 2. Comparison of the rate of patient diagnosis and trend of change in 2019 and 2020 for the child psychiatry department of a tertiary hospital

	Year				
	2019	**2020**	**Change**	**Total**	**p**
Neurodevelopmental disorders	1395 (64.52%)	1031 (57.66%)	-26.09%	2426 (61.42%)	**<0.001**
Intellectual disability	151 (6.98%)	139 (7.77%)	-7.95%	290 (7.34%)	0.344
Attention deficit hyperactivity disorder	1135 (52.50%)	755 (42.23%)	-33.48%	1890 (47.85%)	**<0.001**
Oppositional defiant disorder	137 (6.34%)	122 (6.82%)	-10.95%	259 (6.56%)	0.539
Conduct disorder	81 (3.75%)	71 (3.97%)	-12.35%	152 (3.85%)	0.715
Autism spectrum disorder	120 (5.55%)	86 (4.81%)	-28.33%	206 (5.22%)	0.297
Specific learning disorder	175 (8.09%)	113 (6.32%)	-35.43%	288 (7.29%)	**0.033**
Tic disorders	29 (1.34%)	30 (1.68%)	3.45%	59 (1.49%)	0.385
Speech and language disorders	118 (5.46%)	182 (10.18%)	54.24%	300 (7.59%)	**<0.001**
Depressive disorders	165 (7.63%)	139 (7.77%)	-15.76%	304 (7.70%)	0.867
Anxiety disorders	333 (15.40%)	354 (19.80%)	6.31%	687 (17.39%)	**<0.001**
Obsessive-compulsive disorders	82 (3.79%)	106 (5.93%)	29.27%	188 (4.76%)	**0.002**
Advisory support	291 (13.46%)	272 (15.21%)	-6.53%	563 (14.25%)	0.117
Other psychiatric diagnoses	144 (6.66%)	111 (6.21%)	-22.92%	255 (6.46%)	0.565

Data are given as mean ± standard deviation for continuous variables according to normality of distribution and as frequency (percentage) for categorical variables

COVID-19.[19] A study stated that hospital admissions increased in the later stages of the pandemic compared to the acute period.[8] Our finding of reduction in admissions even after the acute phase of the pandemic may be important in this regard.

Various explanations for the reduction in psychiatric admissions were put forward in studies. One of these was people's fears of contamination in hospitals.[10] Previous studies showed that people considered the hospitals as risky places and were afraid of visiting the hospital during the pandemic.[7] Cui et al.[11] Reported that reductions in hospital admissions during the pandemic were related to the distance of hospitals to the city of Wuhan, where the virus was concentrated. Not only the hospital but also the transportation routes to the hospital would be risky in terms of contracting the virus.[20] This situation may have reduced the admissions of people who must use public transportation to go to the hospital. Similarly, it was found that city center admission rates were higher in 2020 than in 2019 in our study. This may be a factor affecting the decrease in the total number of patient admissions. Another explanation could be the use of alternative mental health services such as telepsychiatry. Telehealth services have created an alternative for those who want to get health care without going to the hospital.[13] Telepsychiatry service is not provided in our hospital, but patients may have obtained this service from other sources. Schools play an important role in detecting and guiding psychiatric disorders.[17] Our country was among the countries that started online education during the pandemic period.[5] The lack of regular school life during the pandemic period may reduce the detection of psychiatric disorders and referral of children to professionals, especially in school-age children.

During the pandemic period, the rate of adolescent admissions increased in our study. Adolescence is a period of multiple somatic and behavioral changes as well as a critical period for onset of psychopathologies. Additionally, sociability increases during this period.[21] Closing of schools and reduced social activities may have increased psychiatric symptoms in adolescents.[22] Studies supporting our results reported that psychiatric symptoms among adolescents were elevated in the pandemic period compared to pre-adolescents.[23-25] It was reported that adolescents had more somatic, anxiety and depressive symptoms than children in China.[24] Another study from China demonstrated that the level of anxiety symptoms was higher in adolescents than children.[25] However, in contrast to our finding, a study evaluating the child and adolescent psychiatry emergency admissions stated that there was no significant difference between the ages of subjects who were admitted during the pandemic period compared to the pre-pandemic period.[17] The current study also found an increased rate of female admissions. Conflicting results were reported in adult emergency admissions.[9,16,17] On the other hand, Ferrando et al.[17] could not find a difference between genders in the child and adolescent psychiatry emergency admissions during the pandemic. It is known that females have a higher risk of depression and anxiety disorders than males.[26] The pandemic may have triggered psychiatric problems such as anxiety and depression.[22-24] The higher frequency of anxiety and depression in females may be related to gender differences found in our study.

We found a significant reduction in the rate of admission for neurodevelopmental disorders such as ADHD and SLD. Zhang et al.[27] reported that symptoms worsen in children with ADHD during the pandemic period. A study including parents of children and adolescents with ADHD reported that approximately one-third of children experienced an improvement in symptoms, while a third of them got worse.[28] Several explanations can be put forward to explain our finding. First, as mentioned above, legislature that enabled parents to take the drugs with reports from pharmacies without needing a prescription in our country may have decreased ADHD follow-up admissions. Another possible explanation is that the number of de novo ADHD diagnoses may have decreased due to the closed schools and the inability to monitor the functionality of children in the school environment.[17] Face-to-face education could not be conducted in our country for a considerable time due to the pandemic.[5] Given the Diagnostic and Statistical Manual of Mental Disorders-5 criteria, symptoms must be present in at least two different settings (for example school and home) to diagnose ADHD.[29] The inability to evaluate children in the school environment may have made it difficult to diagnose ADHD. The decrease in admissions for another neurodevelopment disorder, SLD, may be due to ongoing health committee reports for the individual education program. Similar to ADHD, children with SLD may not be closely monitored in the school environment reducing referrals to child psychiatry departments. Despite the decrease in the total rate of neurodevelopmental disorders, an increased rate of speech and language disorders was found in the current study. During the pandemic period, the decrease in peer communication of children and the increase in the use of technology may have negatively affected their language development.[13,30] Increased time spent within the house along with their children may have facilitated parental detection of delays/ impairments in language development among offspring.[31]

Staying away from school, fears about their own and their family's health, being in quarantine, economic problems are stress factors for children and adolescents.[22] Stress can trigger psychiatric problems.[13] Many studies showed that anxiety and depression symptoms increased in children and adolescents during the pandemic period.[22,32,33] Although our study was not conducted in the acute phase of the pandemic, it was observed that the rates of admission for anxiety disorders increased compared to 2019. Similar to our study, when the pandemic eased in China, adolescents' anxiety levels were still higher than in the pre-pandemic period.[33] We found no difference in depressive disorder rates between the two periods. Similarly, an Australian study reported no difference in depressive symptoms in adolescents during the pandemic period.[31] Most of the studies were based on symptoms rather than

clinical diagnosis during the pandemic period.[24,32,33] Although depressive symptoms increased during the pandemic period, our study showed that the diagnosis of depression would not increase in parallel.

Since the beginning of the COVID-19, pandemic has raised concerns about the new onset of OCD and to cause exacerbation of symptoms in diagnosed cases.[34,35] Studies evaluating the effects of the pandemic on OCD symptoms in the children and adolescents are limited.[36,37] Schwartz-Lifshitz et al.[36] reported no worsening of symptoms, however Tanir et al.[37]suggested worsening symptoms. It was stated that the difference between the two studies may be related to the questionnaire used. In addition, deterioration detected with semi-structured interviews may be more objective. The diagnostic evaluation by experienced child psychiatrists in this study strengthens our findings. During the epidemic period, frequent reminders of transmission routes (such as touch) and emphasis on cleaning-hygiene rules may have triggered obsessive-compulsive symptoms in vulnerable individuals.[35,36]

Study Limitations

Our study has several limitations. Firstly, the single-center nature of our design prevents the generalization of our findings. While evaluating the patients, their medical records were examined, but there was no standard diagnostic interview. In this case, other potential comorbidities of the patients may be missed. The strength of our study is the evaluation of outpatient clinic admissions for children and adolescents (other studies focused mainly on emergency visits) and being conducted in later stages of the pandemic. Other study strengths were the size of the study sample, the similarity of the admission season and the appointment system, and the retrospective collection of the electronic records by the same clinician who evaluated the study data at the time of admission.

Conclusion

The current study conducted after the acute phase of the pandemic reported a decrease in patient admissions compared to the previous year. The pandemic not only reduced emergency psychiatric admissions but also outpatient clinic admissions. Considering the negative impact of the pandemic on mental health, the decrease in the number of admissions suggests that individuals could not access the mental health service they needed. In situations that negatively affect the health system, such as a pandemic, it may be beneficial to develop new policies to ensure the continuity of mental health services. However, studies with larger sample sizes and multi-center designs are needed to evaluate the effect of the pandemic on the child and adolescent psychiatry hospital admissions. Another important finding of our study was the increase in adolescent admissions. This finding indicates that adolescents may be under elevated risk of experiencing mental problems during the pandemic period. Special interventions for adolescents may help promote and protect their mental health in future potential pandemics.

Ethics

Ethics Committee Approval: Ethical approval was obtained from the University of Health Sciences Turkey, Kanuni Training and Research Hospital Clinical Research Ethics Committee (decision no: 2021/27, date: 12.02.2021).

Informed Consent: Retrospective study.

Authorship Contributions

Concept: E.H., B.S.Ö., B.Ş., Design: E.H., Data Collection or Processing: E.H., B.S.Ö., B.Ş., Analysis or Interpretation: E.H., B.S.Ö., B.Ş., Literature Search: E.H., B.S.Ö., B.Ş., Writing: E.H., B.S.Ö., B.Ş.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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