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Original Article

Child and Adolescent Forensic Psychiatry Experiences During the COVID-19 Pandemic

COVID-19 Pandemisi Sürecinde Çocuk ve Ergen Ruh Sağlığı Adli Kurul Deneyimleri

Birsen Şentürk Pilan[1], İpek İnal Kaleli[1], Serpil Erermiş[1], Ahsen Kaya[2], Sezen Köse[1], Burcu Özbaran[1], Tezan Bildik[1]

[1]Ege University Faculty of Medicine, Department of Child and Adolescent Psychiatry, İzmir, Turkey
[2]Ege University Faculty of Medicine, Department of Forensic Medicine, İzmir, Turkey

ABSTRACT

Objective: Coronavirus disease-2019 (COVID-19) changed the status-quo in psychiatric interview with the advent of telemental health practices, save for a select group of patients; forensic psychiatric interviews among them. The present study aimed to identify the predictors of completing forensic psychiatric evaluations mandated by the judicial authorities in the hospital setting during the COVID-19 outbreak.

Method: Twenty-six patients who had completed an initial forensic psychiatric assessment and were required to complete a child and adolescent forensic psychiatry board interview during the height of the COVID-19 pandemic were recruited. Their records were retrospectively examined, sociodemographic data, Beck Depression Inventory (BDI), the Screen For Child Anxiety Related Disorders (SCARED), and Wecshler Intelligence Scale for Children-revised scores were recorded and analyzed.

Results: Statistical analysis revealed an association between conduct disorder and concomitant substance use with missed appointments, and maternal employment and completed interviews. BDI and SCARED total scores showed no difference between the patients who missed or completed their mandatory forensic psychiatry board assessment. BDI individual items of loss of pleasure (item 4), suicidality (item 9), and loss of interest (item 12) were associated with missed appointments.

Conclusion: The results of this study support the established relationship between conduct problems and depressive symptoms, and this demographic group may be among the most affected by the limitation of access to mental health services during the COVID-19 pandemic, as they are already less likely to seek help overall.

Keywords: COVID-19 pandemic, child and adolescent psychiatry, forensic psychiatry, conduct disorder, depression

ÖZ

Amaç: Çalışmamızın amacı, adli makamlarca tamamlanması zorunlu tutulan adli kurul randevularına pandemi döneminde katılan ve katılmayan gençler arasındaki farkları saptamaktır.

Yöntem: Çalışmamıza, ilk adli psikiyatri muayenesi bir çocuk psikiyatristi tarafından tamamlamış olup pandeminin erken üç aylık döneminde Çocuk ve Ergen Ruh Sağlığı Adli Kurulu tarafından değerlendirmesi planlanmış 26 genç dahil edilmiştir. İlk adli psikiyatrik görüşme kayıtları geriye dönük incelenmiş ve sosyo-demografik verileri, psikiyatrik tanıları; Beck Depresyon Ölçeği (BDÖ), Çocukluk Çağı Kaygı Bozuklukları Özbildirim Ölçeği (KAYBÖ) puanları kaydedilmiştir.

Bulgular: İstatistiksel analiz sonucunda annenin çalışmasının pandemi döneminde adli kurul randevularına gelinmesini öngördüğü (p=0,009); anksiyete bozukluğu, zihinsel yetersizlik, dikkat eksikliği tanı kriterlerinin karşılanmasının randevuya gelme durumunu etkilemediği görülmüştür. Psikiyatrik tanılar arasında davranım bozukluğu tanısının ve madde kullanımının planlanan adli kurul randevusuna gelinmemesiyle ilişkili olduğu saptanmıştır (p=0,014, p=0,018). Gruplar arasında BDÖ ve KAYBÖ puanları açısından fark olmadığı, randevulara gelmeyen gençlerin toplam puandan bağımsız olarak BDÖ'nün 4. (anhedoni: p=0,015), 9. (suisidalite: p=0,009) ve 12. (ilgi kaybı: p=0,028) maddelerinde anlamlı yüksek puanlar aldıkları görülmüştür.

Sonuç: Çalışmamız, adli kurul randevularına gelinmemesinin davranım problemleri ve depresif belirtilerle ilişkili olduğunu göstermiştir. Eşik-altı depresif belirtileri olup davranım bozukluğu tanı kriterlerini karşılayan gençlerin psikiyatrik takip ve tedavi uyumları yaşıtlarına göre daha zayıf olup, bu grup COVID-19 salgını sırasında ruh sağlığı hizmetlerine erişimin kısıtlanmasından en çok etkilenen gruplar arasındadır.

Anahtar kelimeler: COVID-19, pandemi, çocuk ve ergen psikiyatrisi, adli psikiyatri, davranım bozukluğu, depresyon

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Corresponding Author
İpek İnal Kaleli Ph.D.
Ege University Faculty of Medicine, Department of Child and Adolescent Psychiatry, İzmir, Turkey
ipekinal93@gmail.com
ORCID: 0000-0003-2148-2363

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INTRODUCTION

Coronavirus disease-2019 (COVID-19) created a visible burden on mental health worldwide, for adults and children alike. Multiple studies have reported an increase in anxiety and depressive symptoms, especially in young people [1,2]. Exacerbation of existing mental health issues in young people also contributed significantly to the mental health burden wrought on by the COVID-19 pandemic as people with existing mental health problems were considered to be at-risk in addition to the elderly, young people, people with limited financial security [3-5].

A pandemic is a dynamic process, and dividing the allotted period into three specific phases may aid in painting a comprehensive picture of the pandemic process as each phase has unique demands from the healthcare system. The first phase, denoted as the preparation phase, is followed by the second punctum maximum phase, where peak numbers of confirmed cases and mortality rates are observed, and the third normalization phase is marked by a fall in cases and mortality rates [6]. Three distinctly defined phases of the COVID-19 pandemic required different interventions for the promotion of mental health. During the relatively short preparation phase, child and youth mental health services were mostly unaffected with the implementation of personal protective equipment by the mental health practitioners and the general public. However, the report of the index case was followed by a rapid increase in confirmed case numbers and marked the beginnings of the second phase of the COVID-19 pandemic. During the so-called punctum maximum (second) phase, halting mental health services instigated a shift towards telemental health globally with varying results [7-9]. The requisites and consequences of the last phase (the normalization phase) remain to be seen both globally and locally.

COVID-19 was declared a pandemic on March 11th by the World Health Organization, and country-wide precautions were instigated in Turkey in a stepwise manner. During this time, telemedicine approaches were instituted for the child and adolescent department in our institution on March 18th for three months except for inpatient and emergency mental health, and forensic psychiatric evaluations of youth. Child and adolescent forensic psychiatry is a subspecialty that could not benefit from telemental health interventions, as a face-to-face assessment is key in deciding the best course of action for sexual abuse victims, juvenile offenders, and evaluation of youth for marriage and custody.

Children and adolescents are referred to our institution by judicial authorities for a complete psychiatric evaluation. In our institution, a comprehensive forensic psychiatric assessment of a child or adolescent consists of two separate interviews. The first interview is conducted by a trained child and adolescent psychiatrist and the second interview by the child and adolescent forensic psychiatry board. The board consists of a multidisciplinary team of three forensic medicine specialists, one child and adolescent psychiatrist, and one neurologist. After referral of the patient to the forensic child and adolescent psychiatry board, a psychiatric report is prepared for judicial authorities.

The two-step process mentioned above was significantly affected during the COVID-19 pandemic due to patient no-shows. The missed board interview appointments, which are mandated by law, were of particular interest at that time. This study aims to detect, quantify and analyze the differences between the patients who braved a pandemic to complete their forensic psychiatric assessments and the patients who did not during the punctum maximum (second) phase of the COVID-19 outbreak.

MATERIALS and METHODS

Study Design

The established protocol for the forensic psychiatric assessment of children and adolescents referred to our department is as follows: The initial interviews are conducted by a trained child and adolescent psychiatrist, which were completed prior to the COVID-19 pandemic in the present study, where sociodemographic data and clinical assessments are recorded. A trained clinical psychologist with over 20 years of experience in child and adolescent forensic psychology administers the Wechsler Intelligence Scale for Children-Revised (WISC-R) version to assess intellectual disability and I.Q. scores for all referred patients. All eligible patients complete the Screen for Child Anxiety Related Disorders (SCARED) and Beck Depression Inventory (BDI) self-report questionnaires.

Patients who had a child and adolescent forensic psychiatry board interview appointment during the punctum maximum phase of the COVID-19 pandemic were selected. A total of 26 patients had completed their initial assessment and were referred to the child and

adolescent forensic psychiatry board interviews during the three-month pandemic period of March 18th-June 18th, 2020 were included in the study. Sixteen patients had completed their scheduled child and adolescent forensic psychiatry board interview in addition to the initial assessment, and a total of ten patients had missed their scheduled appointments during the punctum maximum phase of the pandemic and were rescheduled to a future date.

Records of the patients who completed their initial interviews, and then referred to be interviewed by the child and adolescent forensic psychiatry board during the COVID-19 pandemic were retrospectively reviewed. Relevant sociodemographic data, scores of self-report questionnaires, and psychometric tests were recorded. A missed interview with the board was rescheduled for no more than two accounts, and the legal guardians of the youth were notified of the new appointment. The presented study was conducted in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and approved by the by the Ege University Faculty of Medicine Clinical Research Ethics Committee (approval number: 20-5.1T/66, date: 28.05.2020). Accordingly, informed consent was obtained from all participants.

Measures

Beck Depression Inventory

Developed and revised by Beck and Steer [10] BDI is a 21-item self-assessment scale that measures somatic, emotional, cognitive, and behavioral symptoms of depression. Items are scored between 0-3, and each item is designed to assess a core symptom of depression. Although higher scores in this self-report scale are correlated with the severity of depression, it is not used as a diagnostic tool. The BDI was found to be a highly reliable and valid measure for depressive symptoms in Turkish youth with a cut-off of 17 points for clinical mild depression [11].

The Screen for Child Anxiety Related Disorders

This self-report scale was developed by Birmaher et al.[12] in 1985 and consists of 27 questions at a reading level suitable for children and youth aged 7-17 years. This scale assesses the subcategories of panic/somatic symptoms, generalized anxiety, social anxiety, separation anxiety school avoidance on a 3-point Likert scale. The total score is highly correlated with the severity of anxiety symptoms in general, while the subscores can support diagnoses for various anxiety disorders. High reliability and validity were reported in its Turkish adaptation [13].

Wechsler Intelligence Scale for Children-Revised

Developed in 1949 and revised in 1974 by Wechsler [14], WISC-R is a widely used intelligence scale for children [15]. Standardized for Turkish children, this test was used in our study to diagnose intellectual disability, and individual verbal, performance and total I.Q. scores are also included in the statistical analysis [16].

Statistical Analysis

The differences between patients who did and did not complete their scheduled interviews during the punctum maximum phase of the pandemic were analyzed by statistical means. Statistical analyses were conducted with IBM SPSS Statistics v25.0. Fisher's exact test (two-tailed) was used to analyze the association between sociodemographic nominal variables and attendance, and Mann-Whitney U test was utilized to assess the levels of significance between the median patient, maternal, paternal ages. P-values <0.05 were considered statistically significant.

RESULTS

The median age of all patients was 16.50 years, with a minimum age of 8 and a maximum age of 23 years. Overall, 46.2% (n=12) of the patients were male and 53.8% (n=14) were female. Patients' reasons for referral and completion of the board interview during the punctum maximum phase, as well as sociodemographic data of the patients (n=26), are summarized in Table 1.

Statistically significant differences between groups were observed for maternal employment (p=0.009), meeting the diagnostic criteria for any psychiatric diagnosis (p=0.014), for conduct disorder (p=0.018), and substance abuse (p=0.018). Among six patients with substance abuse (n=6), four had used multiple substances (amphetamines, cannabinoids, sedative/hypnotics, other), one had used only a cannabinoid, and another one only sedative/hypnotic for at least six months. While the patients who had completed their child and adolescent forensic psychiatry evaluation were more likely to have an employed maternal figure, conduct disorder and substance abuse were higher in the group who had missed their appointments.

Table 1. Sociodemographic data of the patients referred to child and adolescent forensic psychiatry board assessment during the punctum maximum (second) phase of the COVID-19 pandemic

	Completed board assessment (n=16)	Missed board assessment (n=10)	Total number of patients (n=26)	p-value
Age, mean (±SD)	16.03 (±0.93)	16.35 (±0.58)	16.15 (±3.09)	0.653
Gender, n (%)				
Male	7 (43.8)	5 (50.0)	12 (46.2)	-
Female	9 (56.2)	5 (50.0)	14 (53.8)	-
Reason for admission, n (%)				
Sexual abuse victim	7 (43.8)	2 (20.0)	9 (34.6)	-
Physical abuse victim	1 (6.2)	-	1 (3.8)	-
Juvenile offender	7 (43.8)	6 (60.0)	13 (50.0)	-
Custody	-	2 (20.0)	2 (7.7)	-
Marriage	1 (6.2)	-	1 (3.8)	-
Education, n (%)				0.442
In school	10 (62.5)	4 (40.0)	14 (53.8)	-
Dropped out	6 (37.5)	6 (60.0)	12 (46.2)	-
Smoking, n (%)	9 (56.2)	6 (60.0)	15 (57.7)	1.0
Alcohol use, n (%)	3 (18.8)	2 (20.0)	5 (19.2)	1
Substance use, n (%)	1 (6.2)	5 (50.0)	6 (23.1)	0.018*
Psychiatric diagnoses, n (%)	6 (37.5)	9 (90.0)	15 (57.7)	0.014*
Conduct disorder	1 (6.2)	6 (60.0)	7 (26.9)	0.018*
Mental insufficiency	3 (18.8)	2 (20.0)	5 (19.2)	1
Anxiety disorder	1 (6.2)	1 (10.0)	2 (7.7)	1
ADHD	1 (6.2)	-	1 (3.8)	1
Maternal age, mean (± SD)	39.56 (±1.52)	41.28 (±2.54)	40.08(±6.19)	0.568
Maternal primary education, n (%)				1.0
Completed	7 (43.8)	3 (30.0)	10 (38.5)	-
Dropped out	7 (43.8)	3 (30.0)	10 (38.5)	-
Maternal employment, n (%)				0.009*
Employed	8 (50.0)	0	8 (30.8)	-
Unemployed	7 (43.8)	9 (90.0)	16 (61.5)	-
Maternal psychiatric history, n (%)	6 (37.5)	2 (20.0)	8 (30.8)	0.657
Paternal age mean (± SD)	44.28 (±1.73)	47.66 (±2.69)	45.3 (±6.55)	0.561
Paternal primary education, n (%)				1.0
Completed	5 (31.2)	2 (20.0)	7 (26.9)	-
Dropped out	9 (56.2)	4 (40.0)	13 (50.0)	-
Paternal employment, n (%)				1.0
Employed	15 (93.8)	9 (90.0)	24 (92.3)	-
Unemployed	-	-	-	-
Paternal psychiatric history, n (%)	2 (12.5)	1 (10.0)	3 (11.5)	1.0
Family type, n (%)				0.226
Married	6 (37.5)	6 (60.0)	12 (46.2)	-
Divorced	10 (62.5)	3 (30.0)	9 (34.6)	-
Family income, n (%)				
Below poverty threshold	5 (31.2)	5 (50.0)	10 (38.5)	-
Above poverty threshold	11 (68.8)	5 (50.0)	16 (61.5)	-
Family alcohol/substance use, n (%)	4 (25.0)	2 (20.0)	6 (23.1)	1
Family criminal history, n (%)	4 (25.0)	6 (60.0)	10 (38.5)	0.109

*p<0.05. COVID-19: Coronavirus disease-2019, SD: Standard deviation

SCARED was completed by 15 patients. Inadequate reading and writing skills were the primary cause of incomplete measures in 7, followed by multiple missing items in 2 and inappropriate age for the indicated test in 2 patients. Total scores and subscores were compared between the two groups with the Mann-Whitney U test, and the results for the analyses are summarized in Table 2.

BDI was completed by 15 patients. Inadequate reading and writing skills were the primary cause of incomplete measures in 6, followed by multiple missing items in 3, and inappropriate age for the indicated test in 2 patients. Differences in mean and individual item scores between the two groups were assessed with Mann-Whitney U test. The results are summarized in Table 2 and 3.

WISC-R was completed by 25 patients. One patient who was unable to take the test and was administered an age-appropriate developmental test, so this test was not applied for this patient. Differences in verbal, performance, and total I.Q. scores that were assessed with Mann-Whitney U test are summarized in Table 2.

No statistical significance in BDI scores, SCARED scores, and WISC-R IQ scores were detected between groups. However, when the cut-off point of 17 (indicating borderline clinical depression and above) was implemented, statistically significant differences were observed between groups (Table 3).

The answers to individual items in BDI between the patients who completed and missed the board assessment appointments differed significantly on items 4, 9 and 12. These findings further support the presence of an undiagnosed depressive episode independent of BDI total scores despite thorough forensic psychiatric evaluation in patients who had missed their mandatory child and adolescent forensic psychiatry interviews during the pandemic.

DISCUSSION

The present study aimed to present a cross-sectional snapshot of the seldom reported COVID-19's effects on a subspecialty of child and adolescent psychiatry and a population of youth. The multitude of sociodemographic parameters was found to be statistically insignificant in predicting the attendance to the board interviews during the punctum maximum phase of the pandemic, with the exception of maternal employment. Having a mother with an active economic role in the family was the singular statistically significant factor of attendance to the court-mandated psychiatric board interviews,

Table 2. Analysis of WISC-R, SCARED, BDI scores of the patients referred to child and adolescent forensic psychiatry board assessment during the punctum maximum (second) phase of the COVID-19 pandemic

	Board assessment completed (n=15)	**Board assessment missed (n=10)**	**Total number of patients (n=25)[a]**	**p-value**
WISC-R scores mean (± SD)				
WISC-R verbal IQ	76.86 (±4.88)	68.1 (±8.23)	73.36 (±21.96)	0.192
WISC-R performance IQ	81.46 (±5.84)	72.0 (±8.25)	77.68 (±24.01)	0.202
WISC-R total IQ	78.00 (±5.44)	68.3 (±8.57)	74.12 (±23.62)	0.222
	Completed board assessment (n=10)	**Missed board assessment (n=5)**	**Total number of patients (n=15)[b]**	**p-value**
SCARED scores mean (± SD)	24.66 (±5.52)	23.5 (±5.59)	24.2 (±14.98)	0.906
Panic/somatic	6.44 (±2.37)	7.0 (±2.43)	6.66 (±6.46)	0.678
Generalized anxiety	5.55 (±1.50)	5.50 (±1.80)	5.53 (±4.30)	0.953
Separation anxiety	5.11 (±0.75)	4.16 (±0.74)	4.73 (±2.08)	0.471
Social anxiety	6.11 (±1.28)	5.66 (±1.78)	5.93 (±3.91)	0.679
School avoidance	1.44 (±0.37)	1.16 (±0.74)	1.33 (±1.39)	0.461
BDI scores mean (± SD)	14.30 (±4.88)	27.0 (±1.37)	18.53 (±13.94)	0.220
BDI <17, n (%)	7 (77.8)	0	7 (46.7)	-
BDI ≥17, n (%)	3 (32.2)	5 (100.0)	8 (53.3)	0.026*

[a]One patient was unable to complete the WISC-R test and was administered an age-appropriate developmental test, is not included, [b]Nine patients were unable to complete the self-assessment inventories due to various reasons referred to in the text, *p<0.05, COVID-19: Coronavirus disease-2019. WISC-R: Wechsler Intelligence Scale for Children-Revised, SD: Standard deviation, SCARED: Screen For Child Anxiety Related Disorders, BDI: Beck Depression Inventory

Table 3. Analysis of beck depression inventory individual items' statistical significance between the two groups (completed vs missed board appointments)

BDI individual item scores	p-value
1. Sadness	0.471
2. Pessimism	0.093
3. Past failure	0.727
4. Loss of pleasure	0.015*
5. Guilty feelings	0.471
6. Punishment feelings	0.225
7. Self-dislike	0.891
8. Self-criticalness	0.394
9. Suicidal thoughts	0.009*
10. Crying	0.268
11. Agitation	0.065
12. Loss of interest	0.028*
13. Indecisiveness	0.648
14. Appearance	0.294
15. Concentration	0.099
16. Changes in sleep	0.158
17. Fatigue	0.209
18. Changes in appetite	0.147
19. Weight loss	0.834
20. Somatic/health	0.945
21. Loss of sexual interest	0.277

*P<0.05, BD: Beck depression inventary

independent of family type, maternal education levels, and household income.

Meeting the diagnostic criteria of a psychiatric disorder was also in line with our starting hypothesis in that resilient children would be more likely to attend the scheduled board interviews during the pandemic. Contrary to expectation, the diagnosis of conduct disorder was found to be a strong predictor for non-attendance while the other diagnoses (i.e. anxiety disorder) were not. No significant differences in the BDI and SCARED scores were observed between the two groups, including the five anxiety subscales defined in SCARED. When the scores were compared for individual items of the BDI, a statistically significant difference in individual items were observed between the groups in items 4 and 9. The presence of moderate depression was statistically significant in the non-attending group despite a thorough psychiatric examination has suggested otherwise. No diagnoses of major depressive disorder were made after the initial interview of the patient by the child and adolescent psychiatrist, which could be the result of youth downplaying their depressive symptoms during the forensic psychiatric interview.

The impact of the COVID-19 pandemic on the mental health of the general population as well as its potential effects on vulnerable groups such as the mentally ill have been reported thoroughly, as previously mentioned emphasizing a widespread but safe use of technology [17]. Successful implementation of telemental health practices for children diagnosed with ADHD and other disorders could be implemented rapidly and effectively [18,19]. Among these vulnerable groups, children with conduct disorder should not be disregarded.

Children diagnosed with conduct disorder are at risk for substance use disorder, depression, suicide, and overall premature death [20-22]. Major depressive disorder in the context of conduct disorder represents a different subtype of depression with no gender preponderance and different sociodemographic risk factors [23]. Cognitive and executive functions in children with conduct problems are less developed compared to their peers. Especially a deficit in language and meta-linguistic abilities could pose difficulty in communicating psychiatric complaints and decrease help-seeking behavior [24]. Addressing mental problems in juvenile offenders with conduct problems and depression is paramount for reintegrating them into the community. Continued utilization of mental health services was associated with lower levels of recidivism in previous studies [25,26].

The major limitation of this study was the number of patients scheduled for the board interview during the three-month period of the second phase of the pandemic. A more extended period would undoubtedly provide more cohesive data on resilience and risk factors among youth during a pandemic; however, the caveat of not being able to reach or adequately assess the patients would also remain. Though certainly not an accurate representation of the general population of forensic psychiatry experiences overall, our patients provide a practical means to create a basic framework to understand at-risk groups during this time and analyze the outcomes of these extraordinary circumstances.

The present study underlines a possible relationship between attendance to appointments, depression, and conduct problems supporting the established literature on youth diagnosed with conduct disorder accompanied by depression. Effective ways to assess depressive symptoms and establishing rapport with

juvenile offenders with conduct disorder may be outside the scope of forensic psychiatry. Still, the importance of early recognition of depressive symptoms by the forensic psychiatrist could prove to be the deciding factor in the youth's reintegration into society via effective referral to mental health services.

In the present study, we aimed to describe the common qualities and resilience factors of the children where the pandemic could not prevent from completing the forensic psychiatric board interview. Except for a statistically significant relationship between maternal employment and attendance to forensic psychiatry board interviews, we also observed the possible predictors of non-attendance instead.

Completion of the forensic psychiatry board interview is mandated by the courts of law in Turkey as the court cannot progress without an official psychiatric report. Non-attendance to the scheduled interviews, even during a pandemic is alarming. Even more disconcerting is the association between conduct disorder, loss of interest, loss of pleasure and suicidality.

CONCLUSION

We conclude that the pandemic could indeed bar certain disadvantaged children and youth from accessing mental health care. The potential implications of children and youth who are most likely to need mental health services during trying times are the ones who are least likely to be assessed in psychiatry clinics, even when the interview is mandatory. This study underlines the need for additional research on access of disadvantaged youths to mental health services during the COVID-19 pandemic.

Ethics

Ethics Committee Approval: The study was approved by the Ege University Faculty of Medicine Clinical Research Ethics Committee (approval number: 20-5.1T/66, date: 28.05.2020).

Informed Consent: Informed consent was obtained from all participants.

Peer-review: Externally peer-reviewed.

Author Contributions

Surgical and Medical Practices: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B., Concept: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B., Design: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B., Data Collection and/or Processing: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B., Analysis and/or Interpretation: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B., Literature Search: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B., Writing: B.Ş.P., İ.İ.K., S.E., A.K., S.K., B.Ö., T.B.

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